



THUNDER TIGER

Titan X50

Electric Version

INSTRUCTION MANUAL

組裝說明書



No.4756 / 4757



This radio control model is not a toy! Before beginning assembly, please read this manual thoroughly.

本產品為高性能模型非一般玩具，組裝與操作前請詳閱本產品說明書。

The contents are subject to change without prior notice due to product improvements and specification changes.

本套件所附之零件可能跟圖示有所差異。因產品後續之設計研發或功能不斷改善之原因，我們將保留產品規格變更權力，不再另行通知使用者。

Titan X50

Electric Version

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INTRODUCTION / 簡介

Thank you for purchasing the Thunder Tiger Titan X50 R/C helicopter. This new helicopter is the latest innovation by Thunder Tiger. It has the perfect combination of flying stability and the agility for 3D flying. This helicopter is an excellent choice for flying enthusiasts like you. For convenient assembly and safe operation of the helicopter, please read the instructions carefully. Retain the user manual in case you need it for any information or reference.

感謝您購買雷虎科技Titan X50直昇機產品，本項產品為雷虎科技全新開發機種，兼具高度穩定性與3D飛行特性，是熱衷引擎直昇機的您不可錯過的選擇。請於使用本產品前詳盡閱讀使用手冊，以利於組裝工作順暢進行與安全操控本產品。請妥善保存使用說明書，以利後續調整與維修參考用途。

CAUTION / 警告

1. R/C models are not toys. This product is a high-precision flying machine. Possibilities of unexpected crashes may occur due to electronic interference, incorrect operation, or poor mechanical maintenance. Although it is a small-sized helicopter, the rotor blades rotate at high speeds, which may cause serious damage, injury, or death if the model hits people or property. Therefore, extreme caution must be exercised during operation.
2. Thunder Tiger ensures parts packaged in this product is of the highest quality. However, after assembly and usage, parts damaged due to wear or misuse will not be replaced under any circumstances. If you have any questions regarding its operation and repair, Thunder Tigers service agents are able to provide free technical guidance.
3. This product is only recommended for users ages 16 and up. Because flying a R/C helicopter is difficult, beginners must receive guidance and supervision from experienced pilots to minimize unexpected danger. Practice in spacious areas, far away from obstacles such as buildings, trees, electrical towers, or crowds.
4. To decrease the cost of repair and maintenance for beginners, it is recommended to fly the helicopter with a practice rack and to learn basic flying skills with a computer R/C flying simulator. (Crashes in simulators are free to repair!)
1. 本項遙控直昇機產品並不是玩具，是一項結構精密、高專業度模型產品，如果未經正確組裝與操控，將可能對操控者或其他人造成身體傷害。使用者必須了解，若未確實進行飛行前安全檢查或操控不當，而造成人員受傷或物體損壞，使用者必須負起法律責任。
2. 本產品由高品質零組件組成，雷虎科技對於安裝過程、使用過後..等人為因素造成損壞事件不負損壞賠償之責。如您需要本產品相關組裝、調整或其他協助，可與雷虎科技全省經銷商聯繫。
3. 本項產品禁止十六歲以下青少年與孩童使用。強烈建議初學者應取得技術支援後再進行飛行，以避免危險發生。請於空曠地區操控本產品，並避免於建築物、樹木、電塔..等障礙物區域飛行。
4. 建議初學者可安裝練習架或透過電腦模擬軟體練習，可達到實際練習效果與符合經濟效益。

AMA INFORMATION / 特別注意事項

Operating a model helicopter requires a high degree of responsibility and skill. If you are a newcomer to the hobby, it is best to seek help and guidance from accomplished model helicopter pilots. This will greatly speed up the learning process and have you flying successfully in a reasonable amount of time. We also would strongly urge you to join the Academy of Model Aeronautics. The AMA is a non-profit organization that provides its members with a liability insurance plan as well as monthly magazine entitled Model Aviation. All AMA charter aircraft clubs require all pilots to hold a current AMA sporting license prior to operation of their models at club fields. For further information, contact the AMA at:

Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302
(317) 287-1256

操控遙控直昇機對於飛行安全要求極高，需要高度的負責任態度配合，以及較高的操控技巧。如果您是一位初學者，建議您必須向當地專業模型經銷商，或是遙控直昇機相關組織以及經驗豐富的玩家尋求相關協助，以獲得您所需要的訊息以及專業知識。如此可有效協助您縮短學習的時間，更容易學會遙控直昇機的組裝、設定與操控技巧。

FLIGHT SAFETY CHECKLIST / 飛行前安全確認工作項目

1. Make sure that the transmitter battery is fully charged before flying.
 2. Make sure all control surfaces are operated properly before flying.
 3. Do a range check of the radio before the first flight. The electronic equipment must operate properly at a range of at least 5 meters (18 ft) even with the transmitter antenna collapsed.
 4. Make sure there are no other pilots using the same radio frequency with yours and that there are no other radio interference on your frequency.
 5. Be sure to turn on the transmitter first with the throttle stick in the idle position. Plug the battery into the ESC last.
 6. The main rotor and the tail rotor spin at very high RPM. Make sure nothing can come in contact with the rotor blades during flight.
 7. Always maintain a safe distance from the helicopter during flight.
 8. Never fly the helicopter in the rain or in excessive wind conditions.
 9. Always operate and fly the helicopter in a safe and responsible manner.
 10. Never fly the helicopter over other pilots, spectators, cars or anything that could result in injury or property damage.
1. 確認接收機與發射機電池，均已確實充電完成。
 2. 確認所有操控介面運作順暢。
 3. 確認無其他無線電波干擾，且不與其他同好同時使用相同頻率。
 4. 確實將油門搖桿放置於低速，再將發射機電源開啟，然後再將電池接上。
 5. 確認遙控器發射器與接收機工作正常，將機體放至於距離5公尺外，確認遙控器是否正常，機體控制動作是否正確。
 6. 主旋翼與尾旋翼轉速相當高，運轉時須避免任何障礙物與旋翼接觸。
 7. 飛行時，需與遙控直升機保持安全距離。
 8. 勿於下雨天或是強風的狀態下操控遙控直升機。
 9. 請以安全為第一考量，並以高度負責任的態度參與遙控直升機活動。
 10. 禁止於人群、車輛..或任何其他障礙物上方飛行遙控直升機，避免意外發生。

POST FLIGHT INSPECTION / 飛行結束安全檢查事項

1. Inspect the model thoroughly to insure no parts have come loose or become damaged during the flight and landing. Replace damaged parts and tighten loose screws before flying again.
 2. Clean the helicopter body.
 3. Lubricate all moving parts to ensure smooth operation for the next flying.
 4. Replace any worn ball links and damaged bearings.
 5. Store the model in a cool, dry place. Avoid putting it under direct sunlight or near a source of heat.
- Following these simple rules will allow you to enjoy the thrill of model helicopter flying for many years.
1. 飛行結束後確認機體所有的零件與螺絲是否有損壞或鬆動，更換損壞零件與確實固定鬆動的螺絲。
 2. 機體清潔乾淨。
 3. 檢查所有活動零組件是否運作順暢，以利下次飛行。
 4. 更換所有鬆動的連桿、接頭，以及損壞的軸承。
 5. 將機體存放於陰涼通風處，避免機體放置於陽光直射處或接近熱源。
- 確實執行上述幾項簡單的步驟，將可確保您的愛機維持數年的壽命！

CAUTION / 注意事項

When the model has crashed, inspect the flybar, rotor shaft and the blade spindle to make sure they are not bent. If any item is damaged, it must be replaced with a new part to ensure safe operation. Do not glue any broken or damaged plastic parts. Do not repair broken rotor blades. It is very important to inspect the motor, speed control and the battery.

Always inspect the following items:

Gears, Ball links, Link rods, Bearings, Main shaft, Flybar, Spindle, Tail boom and support, Fins, Tail rotor shaft, Belt, Main blades, Tail blades, the Motor, the Speed control and the Battery.

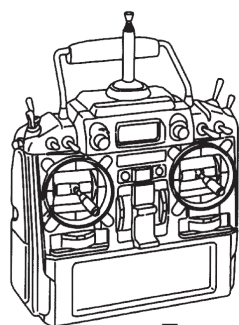
機體一但發生墜落事件，請確實檢查平衡桿、主軸、橫軸是否有彎曲變形，如果有任何的損壞，請立即更換原廠新的零組件，確認機體操作安全！切勿使用任何接著劑嘗試黏合塑膠零件；請勿使用修復過的主旋翼。馬達、速控器、電池的安全檢查工作亦相當重要。

發生機體墜落事件後，請確實檢查下列項目：

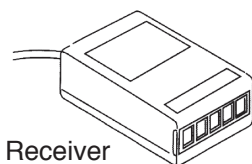
齒輪組、球頭連桿、連桿頭、軸承、主軸、橫軸、尾軸、平衡桿、平衡片、尾管、尾管支撐架、垂直與水平尾翼、尾驅動輪、皮帶、主旋翼、尾旋翼、馬達、速控器、電池。

OTHER ITEMS REQUIRED 需自行準備的配件

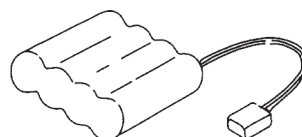
RADIO SET / 遙控系統



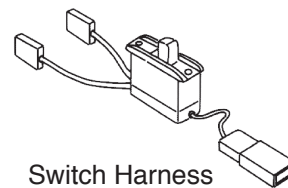
Transmitter (helicopter type only, 6 or more channels)
發射機 (需具備直昇機控制功能的6動以上遙控器)



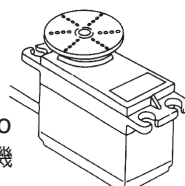
Receiver
接收機



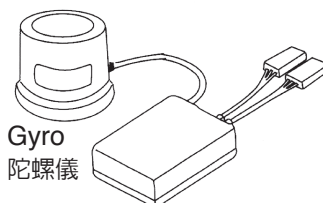
Battery 接收機電池
1000mAh



Switch Harness
具備充電線的開關組

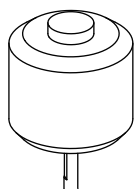


Servo
伺服機

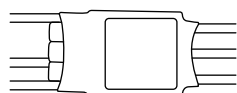


Gyro
陀螺儀

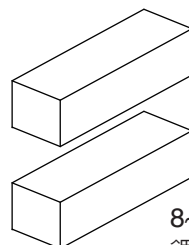
POWER SYSTEM / 動力系統



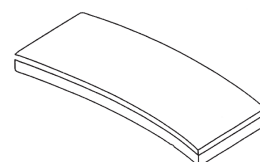
Electric Brushless Motor
無刷馬達



Electronic Speed Controller
速控器

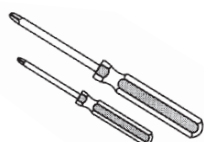


8~12S Li-Po Battery Pack
鋰聚電池組

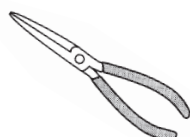


Foam
雙面膠帶

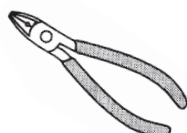
TOOLS REQUIRED FOR ASSEMBLY 需要準備的工具



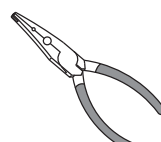
Screw Driver
各種規格的螺絲起子



Needle Nose Pliers
尖嘴鉗



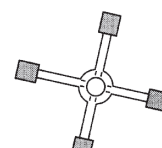
Nipper
斜口鉗



Ball Link Pliers
拆連桿頭的專用鉗子

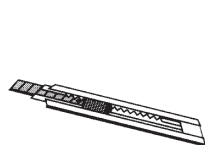


Scissors
剪刀



Metric 4-way Wrench
十字套筒板手

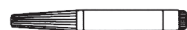
5.5mm
7mm
8mm



Hobby Knife
美工刀



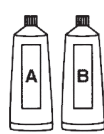
C.A Glue
瞬間膠



Threadlocker
螺絲防鬆膠



Grease
潤滑油



Epoxy
環氧樹脂

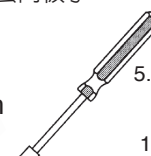


Hex Wrench
六角板手



Wrench
開口板手

5.5mm
7mm



Socket Drivers
套筒螺絲起子

5.5mm
7mm
8mm
10mm

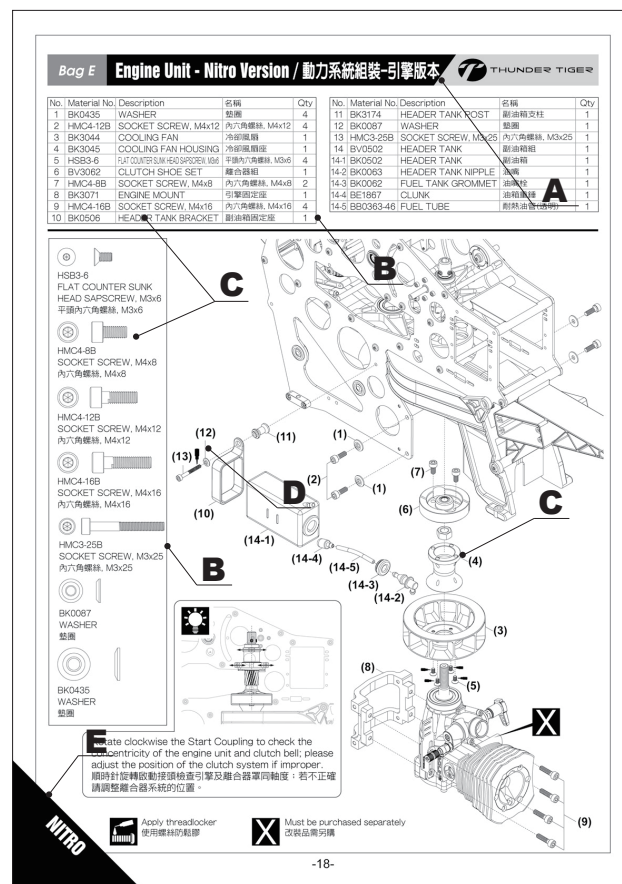
MANUAL FORMAT / 說明書使用方式

How to read the instruction manual?

說明書導讀

- A:** Indicates the assembly step number and the parts bags that are to be assembled.
- B:** Displays actual size drawings, and part quantities used.
- C:** All parts, except screws, are identified by its order numbers. When purchasing spare parts, identify the part required and cross reference this to the spare parts list in the end of this manual, which shows the purchasable spare parts and the corresponding order numbers.
- D:** This instruction manual uses several symbols. Pay careful attention to them during construction. Details are given at the bottom of each page.
- E:** If a label marked here indicates the page is the exclusive assembly steps for a particular model type; please follow the exclusive instructions according to the model type you purchased.
- A:** 顯示組立步驟及需組立之零件包順序。
- B:** 零件實際對照尺寸及使用數量。
- C:** 請比對零件形狀以及後附零件料號對照圖示找出需求零件料號。
- D:** 操作說明符號可更有效協助組裝者使用此說明書，請依說明書符號指示進行組裝步驟。
- E:** 出現此標籤表示本頁為特定模型版本之專屬組裝說明，請依您所購買之版本依說明進行組裝步驟。

Example 說明範例



SYMBOLS USED THROUGHOUT THE MANUAL / 符號說明





The parts in the KIT are packed according to each major assembly steps. The part number and quantity are always shown in the square box on each page. As good practice, only open up the bag that you need for the particular assembly. 零件均依照組裝步驟包裝，請依照組裝程序，逐一開啟零件包，避免零件遺失。

Note / 注意

Assembly drawings will contain icons that indicate use of Threadlocker or CA glue as needed. Examples of the icons are as right shown: 請依組裝步驟圖示，使用防鬆膠或接著劑。圖示範例如右：

- T22(#262) → THREADLOCKER / 螺絲防鬆膠
- CA → CA GLUE / 快乾膠

-  Apply C.A Glue 使用快乾膠黏合
-  Apply threadlocker 使用螺絲防鬆膠
-  Assemble as many times as specified 依指示組裝所需數量
-  Assemble left and right side the same way 左右側組件相同
-  Assemble in right order 依指示順序組裝

-  Cut off shaded portion 依標示部分裁切
-  Ensure smooth, non-binding movement when assembling 確認組件靈活度
-  Drill holes with the specified diameter 依標示尺寸鑽孔
-  Must be purchased separately 改裝品需另購

-  Cut off excess 裁剪多餘部分
-  Apply grease 使用潤滑油膏(黃油)
-  Pay close attention here 注意組裝步驟
-  Hint 組裝提示



No.	Material No.	Description	名稱	Qty
1	BV2181	METAL MAIN ROTOR HUB	金屬主旋翼固定座	1
2	BV2186	METAL SEESAW HUB	金屬穩定桿固定座	1
3	BK2187	COLLAR, d3xD4xW3.8	軸環, d3xD4xW3.8	2
4	HSA3-10	BUTTON HEAD SOCKET SCREW, M3x10	半圓頭內六角螺絲, M3x10	4
5	HMC25-8B	SOCKET SCREW, M2.5x8	內六角螺絲, M2.5x8	1

No.	Material No.	Description	名稱	Qty
6	BK2182	METAL HEAD BUTTON	金屬旋翼頭制動器	1
7	BV2183	METAL MIXING LEVER	金屬混控臂	2
8	BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲 (A)	4
9	BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	2

Please skip to page 10 directly if the model you purchased is a flybarless edition.
如您購買的是無平衡翼版本，請直接翻至第10頁進行組裝。



BK2187

COLLAR, d3xD4xW3.8

軸環, d3xD4xW3.8



HSA3-10

BUTTON HEAD SOCKET SCREW, M3x10

半圓頭內六角螺絲, M3x10



HMC25-8B

SOCKET SCREW, M2.5x8

內六角螺絲, M2.5x8



BK0077

COLLAR, d3xD4xW6

軸環, d3xD4xW6

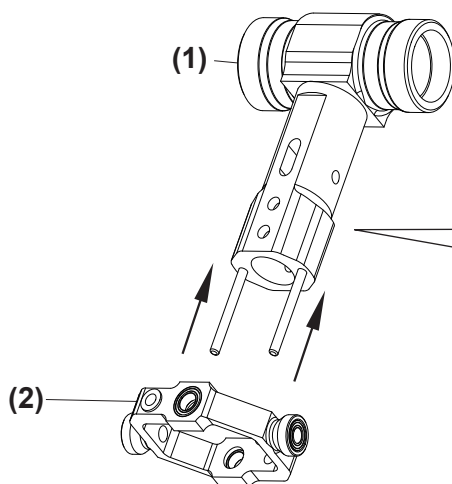


BK0649-1

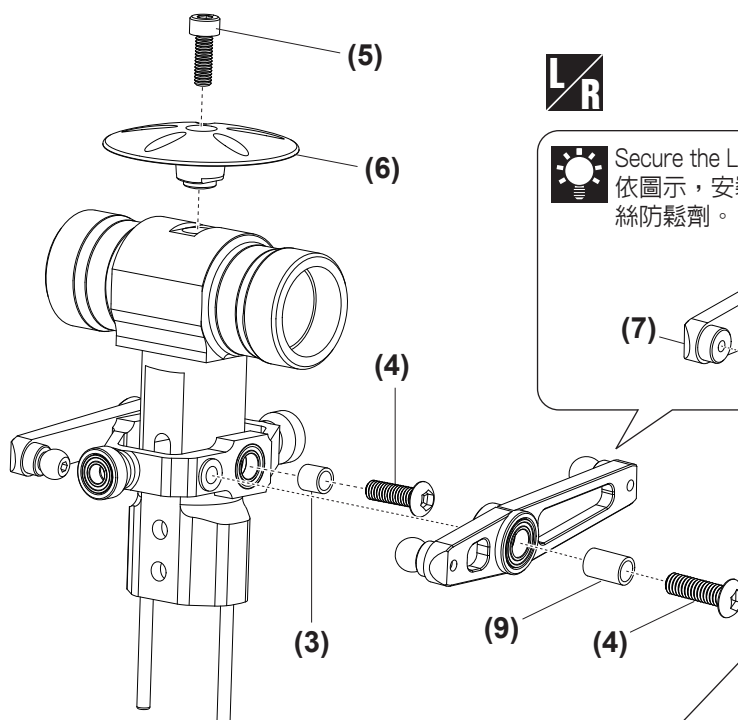
LINKAGE BALL (A)

內六角連接頭螺絲 (A)

Secure all screws shown on this page with a drop of threadlocker except the screws #7.
除螺絲 # 7 之外，本頁顯示之螺絲請使用適量防鬆膠鎖固。



Note the orientation of the Chamfer on the Metal Seesaw Hub.
注意金屬穩定固定座倒角方向。

chamfer
倒角chamfer
倒角

Secure the Linkage Balls to the Mixing Lever.
依圖示，安裝控制臂球頭，並適量使用螺絲防鬆劑。

(7)

(8)



Apply threadlocker
使用螺絲防鬆膠

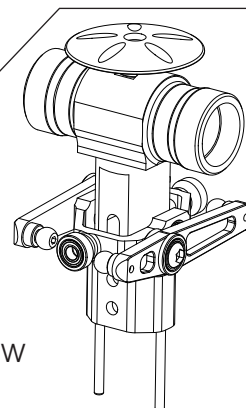


Assemble left and right side the same way
左右側組件相同



Ensure smooth, non-binding movement when assembling
確認組件靈活度

Completed View
組裝完成





No.	Material No.	Description	名稱	Qty
1	BK2184	METAL FLYBAR CONTROL ARM	金屬穩定翼轉臂	2
2	BK2185	METAL FLYBAR CONTROL ARM POST	金屬穩定翼轉臂支柱	2
3	HMC2510B	SOCKET SCREW, M2.5×10	內六角螺絲, M2.5×10	2
4	BK0649-1	LINKAGE BALL(A)	內六角連接頭螺絲(A)	2

No.	Material No.	Description	名稱	Qty
5	HME4-5B	SET SCREW, M4x5	無頭內六角螺絲, M4x5	2
6	BK0631	SUS FLYBAR	穩定桿	1
7	HME3-10B	SET SCREW, M3x10	無頭內六角螺絲, M3x10	2
8	BK0067B	FLYBAR PADDLE (BLACK), 20G	穩定翼(黑), 20G	2



BK0649-1
LINKAGE BALL(A)
內六角連接頭螺絲(A)

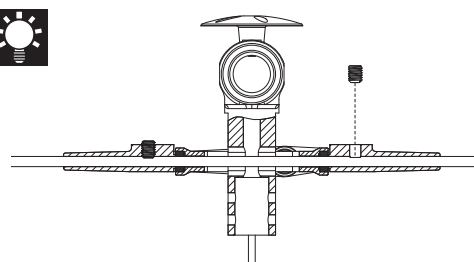
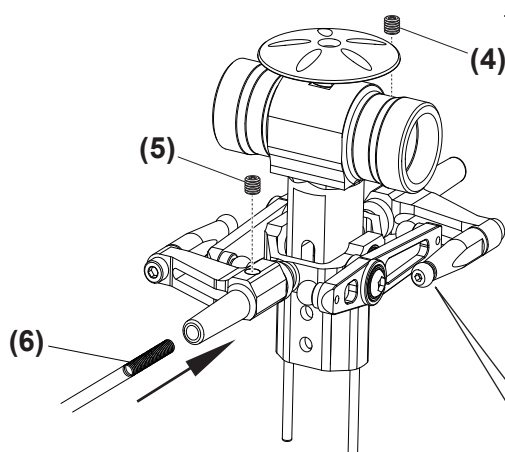


HME4-5B
SET SCREW, M4x5
無頭內六角螺絲, M4x5

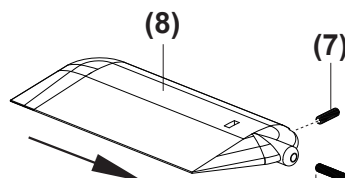
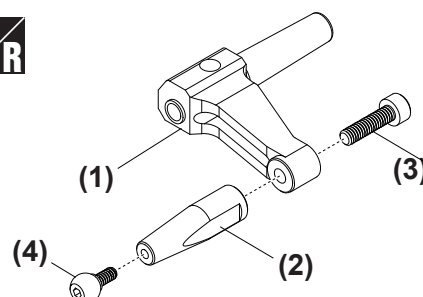


HME3-10B
SET SCREW, M3x10
無頭內六角螺絲, M3x10

Secure all screws shown on this page with a drop of threadlocker except the screws #7.
除螺絲 # 7 之外，本頁顯示之螺絲請使用適量防鬆膠鎖固。



Line up the hole of the Flybar Control Arm and the flat spot of the Flybar Rod when securing the screw.
安裝平衡桿時，請確認對正穩定翼控制臂上鎖固孔位與平衡桿上平面凹槽。

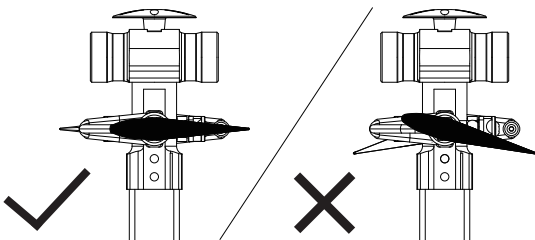


HMC2510B
SOCKET SCREW, M2.5×10
內六角螺絲, M2.5×10

Thread the Paddles onto the Flybar Rod, equal the length to the Flybar Control Arms of each side.
旋上穩定翼於穩定翼桿上，確認兩側的穩定翼至控制臂距離相等。



Line up the Paddles with the Flybar Control Arms.
對正穩定翼與穩定翼控制臂呈水平狀態。



Apply C.A. Glue
使用快乾膠黏合



Apply threadlocker
使用螺絲防鬆膠



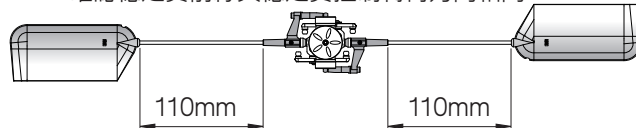
Assemble left and right side the same way
左右側組件相同



Ensure smooth, non-binding movement when assembling
確認組件靈活度



Ensure the leading edges of the Paddles are toward the same side to the Metal Flybar Control Posts.
確認穩定翼前緣與穩定翼控制轉臂方向相同。





No.	Material No.	Description	名稱	Qty
1	BV2574	METAL MAIN ROTOR GRIP SET	金屬旋翼轉座組	2
2	BK2579	METAL ROTOR GRIP LEVER	金屬轉座擺臂	2
3	BK2578	METAL ROTOR GRIP POST	金屬連接座	2
4	HMC3-8B	SOCKET SCREW, M3×8	內六角螺絲, M3×8	2
5	BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲(A)	2
6	HSA3-6	BUTTON HEAD SOCKET SCREW, M3x6	半圓頭內六角螺絲, M3x6	4
7	BK2216	THRUST WASHER, d10xD13xW0.5	止推墊片, d10xD13xW0.5	2
8	HMX0612	THRUST BEARING, d6xD12xW4.5	止推軸承, d6xD12xW4.5	2

No.	Material No.	Description	名稱	Qty
9	BK2214	HARDENED FEATHERING SHAFT	強化固定軸 (D7)	1
10	BK2573	OUTER DAMPER, 7mm	外避震墊圈, 7mm	2
11	BK2572	INNER DAMPER, 7mm	內避震墊圈, 7mm	2
12	BK2525	FLAP COLLAR, d7xD10xW1.5	避震軸環, d7xD10xW1.5	2
13	BK0435	WASHER, d4xD11xW1.7	墊圈, d4xD11xW1.7	2
14	HMC4-8B	SOCKET SCREW M4×8	內六角螺絲M4×8	2
15	HMV1370ZZWY	BEARING, d7xD13xW5	滾珠軸承, d7xD13xW5	4



HMC3-10B
SOCKET SCREW, M3x10
內六角螺絲, M3x10



BK0649-1
LINKAGE BALL (A)
內六角連接頭螺絲(A)



BK2525
FLAP COLLAR, d7xD10xW1.5
避震軸環, d7xD10xW1.5



HMC4-8B
SOCKET SCREW M4×8
內六角螺絲M4×8



HMV1370ZZWY
BEARING, d7xD13xW5
滾珠軸承, d7xD13xW5

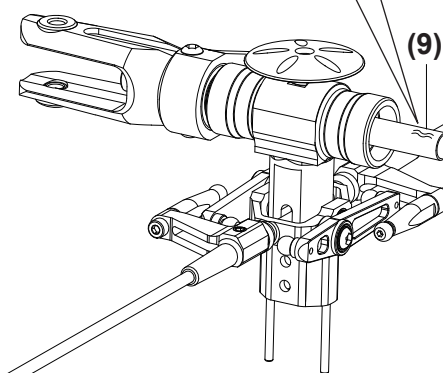


BK2216
THRUST WASHER, d10xD13xW0.5
止推墊片, d10xD13xW0.5

Secure all screws shown on this page with a drop of threadlocker.
本頁顯示之螺絲請使用適量防鬆膠鎖固。



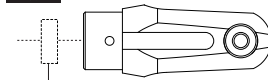
Apply some amount of silicon oil or Vaseline on the Spindle for easy assembly.
在橫軸上塗抹此許矽膠油脂或凡士林可使組裝更為容易。



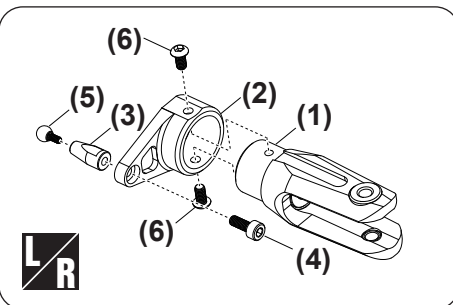
HMX0612
THRUST BEARING, d6xD12xW4.5
止推軸承, d6xD12xW4.5



Assemble the main rotor pitch housing as drawing
主旋翼轉座組裝示意圖



(15) (15) (7) (8)
The bearings (#15) come with the grips which had been assembled by Factory.
主旋翼夾座內軸承 (#15) 已由原廠壓配完成。



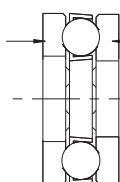
BK0435
WASHER, d4xD11xW1.7
墊圈, d4xD11xW1.7



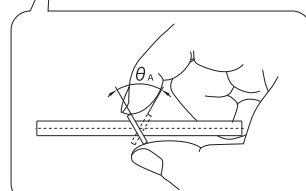
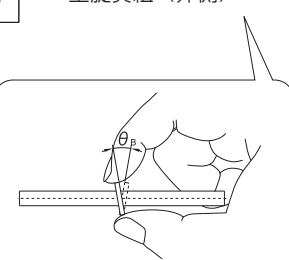
HSA3-6
BUTTON HEAD SOCKET SCREW, M3x6
半圓頭內六角螺絲, M3x6

Diagram for Thrust Bearing Assembly 止推軸承安裝示意圖

Large Internal Diameter
always go toward the
Main Rotor Hub
內徑較大的一側，面向
主旋翼中心座組。(內
側)



Small Internal Diameter
always go toward the
Blade
內徑較小的一側，面向
主旋翼組(外側)。



Checking Tips: $\theta_A > \theta_B$

轉動角度: $\theta_A > \theta_B$

(轉動角度大者，內孔大；轉動角度小者，內孔小)

Completed View 組裝完成



Apply threadlocker
使用螺絲防鬆膠



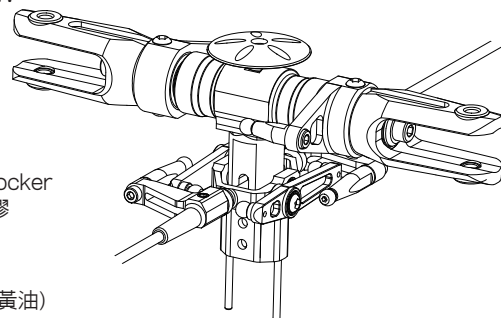
Apply grease
使用潤滑油膏(黃油)



Ensure smooth, non-binding movement when assembling
確認組件靈活度



Assemble left and right side the same way
左右側組件相同





No.	Material No.	Description	名稱	Qty
1	BK2277	HARDENED MAIN SHAFT	強化主軸	1
2	BK0616	SOCKET SCREW,M3x20	內六角螺絲(半牙),M3x20	2
3	HMM3Z	NYLON NUT,M3	止鬆螺帽,M3	2
4	BV2188A	METAL SWASHPLATE	金屬十字盤組	1
5	BK2196	METAL WASHOUT BASE	控制臂座	1
6	BK2199	METAL FLYBAR CONTROL LEVER	金屬穩定翼控制臂	2
7	BK0016-1	WASHOUT LINKAGE	連接座	2

No.	Material No.	Description	名稱	Qty
8	HMV740ZZY	BEARING, d4xD7xW2.5	滾珠軸承, d4xD7xW2.5	4
9	BK0171	PIN	插銷	2
10	HMS15	E RING	E型扣環	2
11	BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲(A)	2
12	BK0088	WASHER, d3xD5xW0.5	墊片 d3xD5xW0.5	2
13	BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	2
14	HSA3-10	BUTTON HEAD SOCKET SCREW, M3x10	半圓頭內六角螺絲, M3x10	2

 
BK0616
SOCKET SCREW,M3x20
內六角螺絲(半牙),M3x20


 
HMM3Z
NYLON NUT,M3
止鬆螺帽,M3



 
HMS15
E RING
E型扣環

 
HMV740ZZY
BEARING,d4xD7xW2.5
滾珠軸承,d4xD7xW2.5

 
HSA3-10
BUTTON HEAD SOCKET SCREW,M3x10
半圓頭內六角螺絲,M3x10

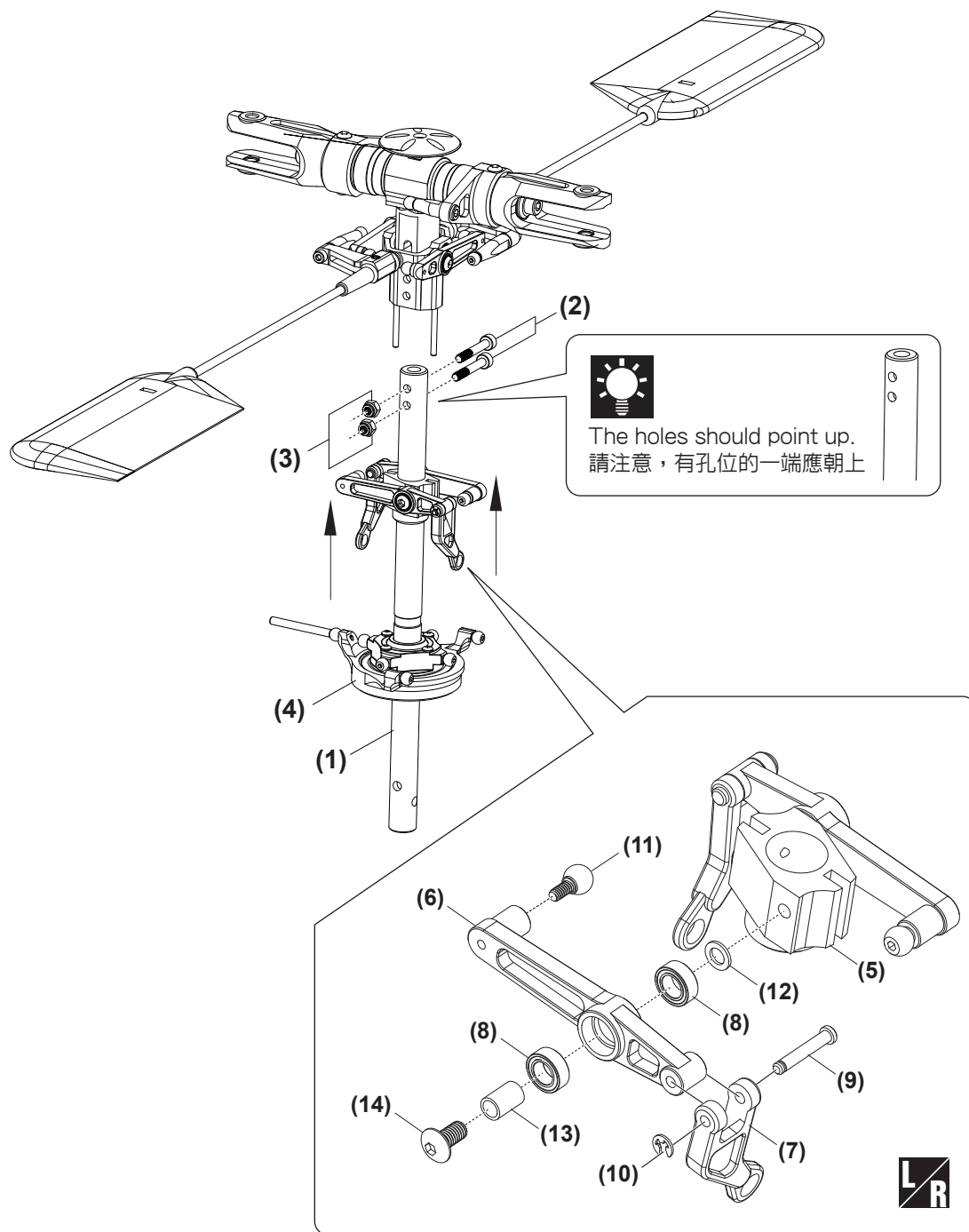
 
BK0077
COLLAR,d3xD4xW6
軸環,d3xD4xW6

 
BK0088
WASHER,d3xD5xW0.5
墊片,d3xD5xW0.5

 
BK0649-1
LINKAGE BALL (A)
內六角連接頭螺絲(A)

 
BK0171
PIN
插銷

Secure all screws shown on this page with a drop of threadlocker.
本頁顯示之螺絲請使用適量防鬆膠鎖固。



Apply threadlocker
使用螺絲防鬆膠



Assemble left and right side the same way
左右側組件相同



No.	Material No.	Description	名稱	Qty
1	BV2574	METAL MAIN ROTOR GRIP SET	金屬旋翼轉座組	2
2	BK2575	FL METAL ROTOR GRIP LEVER	無平衡翼金屬轉座擺臂	2
3	BK2576	FL METAL ROTOR GRIP POST	無平衡翼金屬連接座	2
4	HMC3-8B	SOCKET SCREW, M3×8	內六角螺絲, M3×8	2
5	BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲(A)	2
6	HSA3-6	BUTTON HEAD SOCKET SCREW, M3x6	半圓頭內六角螺絲, M3x6	4
7	BK2216	THRUST WASHER, d10xD13xW0.5	止推墊片, d10xD13xW0.5	2
8	HMX0612	THRUST BEARING, d6xD12xW4.5	止推軸承, d6xD12xW4.5	2
9	BK2214	HARDENED FEATHERING SHAFT	強化固定軸 (D7)	1

No.	Material No.	Description	名稱	Qty
10	BK2573	OUTER DAMPER, 7mm	外避震墊圈, 7mm	2
11	BK2572	INNER DAMPER, 7mm	內避震墊圈, 7mm	2
12	BK2525	FLAP COLLAR, d7xD10xW1.5	避震軸環, d7xD10xW1.5	2
13	BK0435	WASHER, d4xD11xW1.7	墊圈, d4xD11xW1.7	2
14	HMC4-8B	SOCKET SCREW, M4×8	內六角螺絲, M4×8	2
15	HMV1370ZZWY	BEARING, d7xD13xW5	滾珠軸承, d7xD13xW5	4
16	BK2510	METAL MAIN ROTOR HUB	金屬主旋翼固定座	1
17	BK2182	METAL HEAD BUTTON	金屬旋翼頭制動器	1
18	HMC25-8B	SOCKET SCREW, M2.5×8	內六角螺絲, M2.5×8	1



HMC3-10B
SOCKET SCREW, M3x10
內六角螺絲, M3x10



BK0649-1
LINKAGE BALL (A)
內六角連接頭螺絲(A)



BK2525
FLAP COLLAR, d7xD10xW1.5
避震軸環, d7xD10xW1.5



HMC4-8B
SOCKET SCREW M4×8
內六角螺絲M4×8



HMCV1370ZZWY
BEARING, d7xD13xW5
滾珠軸承, d7xD13xW5

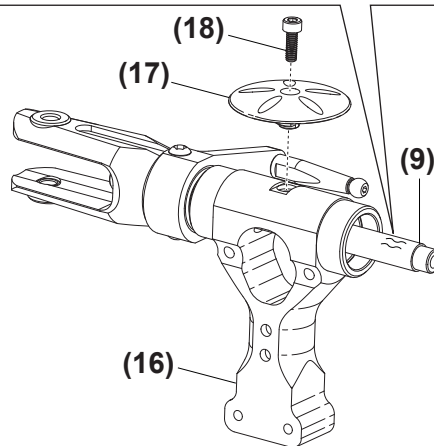


BK2216
THRUST WASHER, d10xD13xW0.5
止推墊片, d10xD13xW0.5

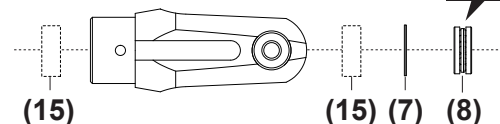
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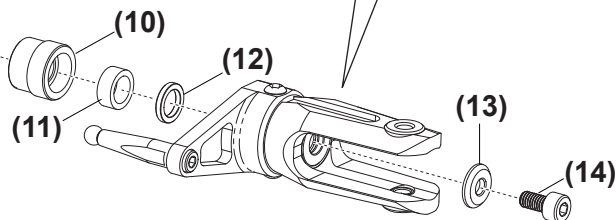
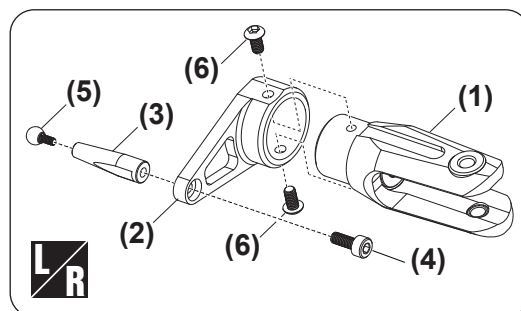
Apply some amount of silicon oil or Vaseline on the Spindle for easy assembly.
在橫軸上塗抹此許矽膠油脂或凡士林可使組裝更為容易。



Assemble the main rotor pitch housing as drawing
主旋翼轉座組裝示意圖



The bearings (#15) come with the grips which had been assembled by Factory.
主旋翼夾座內軸承 (#15) 已由原廠壓配完成。



HMX0612
THRUST BEARING, d6xD12xW4.5
止推軸承, d6xD12xW4.5



BK0435
WASHER, d4xD11xW1.7
墊圈, d4xD11xW1.7



HSA3-6
BUTTON HEAD SOCKET SCREW, M3x6
半圓頭內六角螺絲, M3x6



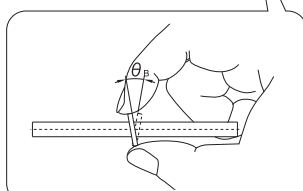
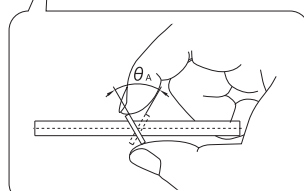
HMC25-8B
SOCKET SCREW, M2.5x8
內六角螺絲, M2.5x8

Diagram for Thrust Bearing Assembly

止推軸承安裝示意圖

Large Internal Diameter
always go toward the
Main Rotor Hub
內徑較大的一側，面向
主旋翼中心座組。(內
側)

Small Internal Diameter
always go toward the
Blade
內徑較小的一側，面向
主旋翼組(外側)。

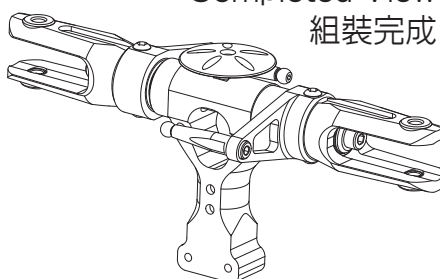


Checking Tips: $\theta_A > \theta_B$

轉動角度: $\theta_A > \theta_B$

(轉動角度大者，內孔大；轉動角度小者，內孔小)

Completed View 組裝完成



Apply grease
使用潤滑油膏(黃油)



Apply threadlocker
使用螺絲防鬆膠



Ensure smooth, non-binding movement when assembling
確認組件靈活度



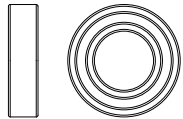
Assemble left and right side the same way
左右側組件相同



No.	Material No.	Description	名稱	Qty
1	BK2236	UPPER BRG	上軸承座	1
2	BK2219	FRAME SPACER	六角連接支柱	2
3	HMV6800ZZY	BEARING, d10xD19xW5	滾珠軸承, d10xD19xW5	1
4	BK2206	MAIN SHAFT LOCK RING	止檔圈	1
5	HME4-3B	SET SCREW, M4x3	無頭內六角螺絲, M4x3	2
6	BK2179	DOUBLE JOINT BALL LINK	雙頭連接桿	2
7	BK2228	FLYBAR JOINT BALL LINK	穩定翼連接桿	2
8	BK2516	LINKAGE ROD, 40mm	連接桿, 40mm	2
9	BK0086	BALL LINK, d4.8x20	單頭連接桿, d4.8x20	4

No.	Material No.	Description	名稱	Qty
10	BK2596	LINKAGE ROD, 52L	連接桿, 52L	2
11	BK1925	BALL LINK	單頭連接桿	4
12	HSA3-14	BUTTON HEAD SOCKET SCREW, M3x14	半圓頭內六角螺絲, M3x14	2
13	BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	2
14	BV2508	FB Metal CONTROL LEVER SET	無平衡翼金屬控制搖臂組	2
15	BK0088	WASHER, d3xD5xW0.5	墊片, d3xD5xW0.5	2
16	BK0171	PIN	插銷	1
17	HMS15	E RING	E型扣環	1
18	BK0016-1	WASHOUT LINKAGE	連接座	1

Secure all screws shown on this page with a drop of threadlocker.
本頁顯示之螺絲請使用適量防鬆膠鎖固。



HMV6800ZZY
BEARING, d10xD19xW5
滾珠軸承, d10xD19xW5



HME4-3B
SET SCREW, M4x3
無頭內六角螺絲, M4x3



BK0086
BALL LINK, d4.8x20
單頭連接桿, d4.8x20

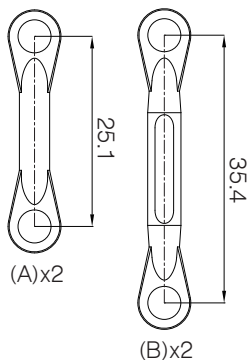


HMS15
E RING
E型扣環



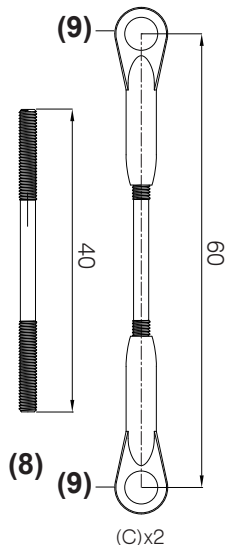
HSA3-14
BUTTON HEAD SOCKET SCREW, M3x14
半圓頭內六角螺絲, M3x14

Scale=1:1 (unit:mm)



(A)x2

(B)x2



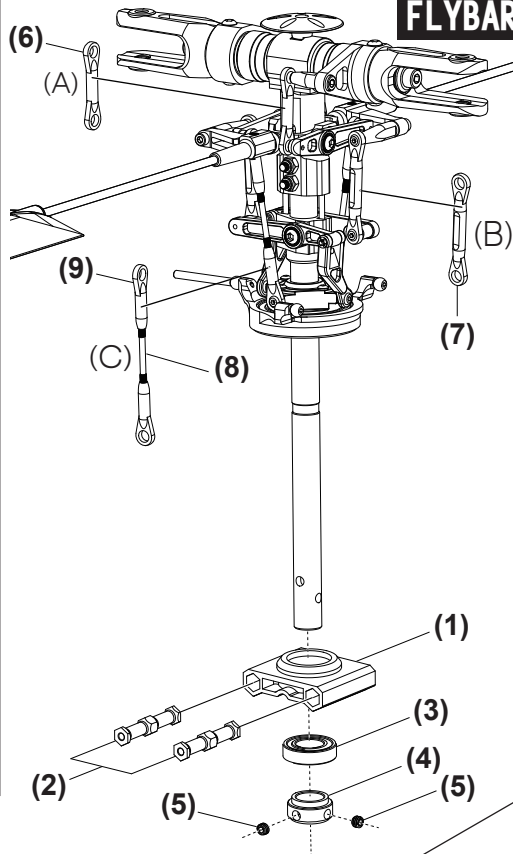
(8)

(9)x2

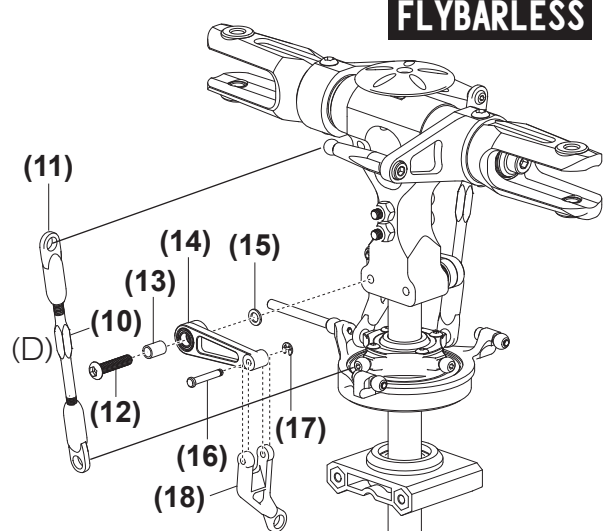


The distance from the Lock Ring to the end of the Main Shaft is approx. 78.5mm.
主軸末端至止檔圈距離為78.5公釐。

FLYBAR



FLYBARLESS



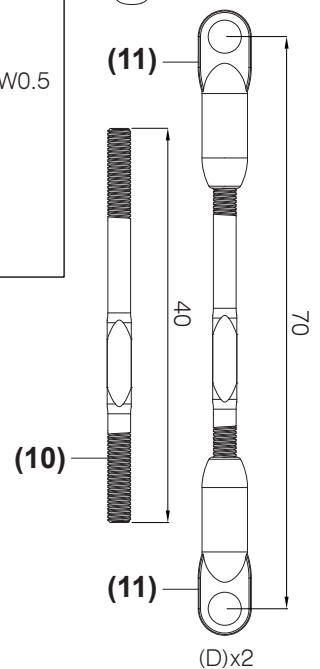
BK0077
COLLAR, d3xD4xW6
軸環, d3xD4xW6



BK0088
WASHER, d3xD5xW0.5
墊片, d3xD5xW0.5



BK0171
PIN
插銷



(10)

(11)

(D)x2



Apply threadlocker
使用螺絲防鬆膠



The length may vary when using different servos, please re-adjust the length as actual condition.
搭配不同品牌伺服機時，連桿長度或有不同，調機時，請再依實際狀況進行微調。



No.	Material No.	Description	名稱	Qty
1	BK2531	TAIL BOOM BRACKET-L	尾管固定座(左)	1
2	BK2532	TAIL BOOM BRACKET-R	尾管固定座(右)	1
3	BK2219	FRAME SPACER	六角連接支柱	4
4	HMC3-20B	SOCKET SCREW, M3x20	內六角螺絲, M3x20	4
5	HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	6
6	BV2269	TAIL GEAR MOUNT SET	傘齒輪固定座組	1
7	BK2268	TAIL GEAR-B	傘齒輪B-25T	1
8	BK2509	WASHER, d12xD14.5xW0.2	墊片, d12xD14.5xW0.2	2
9	BV2265	BEARING BLOCK SET	軸傳軸承座組	2

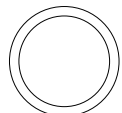
No.	Material No.	Description	名稱	Qty
10	BK2583	TAIL DRIVE GEAR-22T	軸傳尾驅動輪-22T	1
11	BK2267	TAIL GEAR-A	傘齒輪 A-25T	1
12	BK2506	TAIL DRIVE GEAR SHAFT	軸傳驅動軸	1
13	BK2554	COLLAR	軸套	1
14	BD7143	FIXED SCREW	傳動軸固定螺絲(長)	1
15	HMY2-12	PIN, d2x12	軸承滾針, d2x12	1
16	BK0539	SERVO MOUNT	伺服機固定板	1
17	HMC3-25B	SOCKET SCREW, M3x25	內六角螺絲, M3x25	2



HMC3-20B
SOCKET SCREW, M3x20
內六角螺絲, M3x20



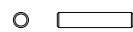
HMM3Z
NYLON NUT, M3
止鬆螺帽, M3



BK2509
WASHER, d12xD14.5xW0.2
墊片, d12xD14.5xW0.2



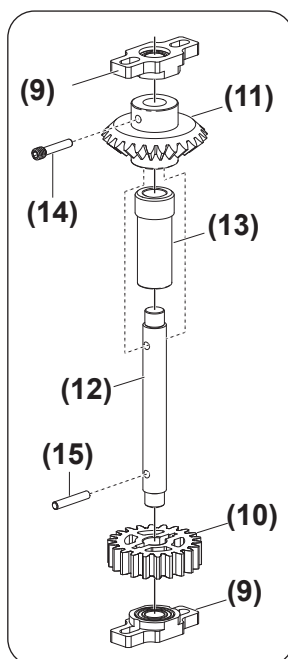
BD7143
FIXED SCREW
傳動軸固定螺絲(長)



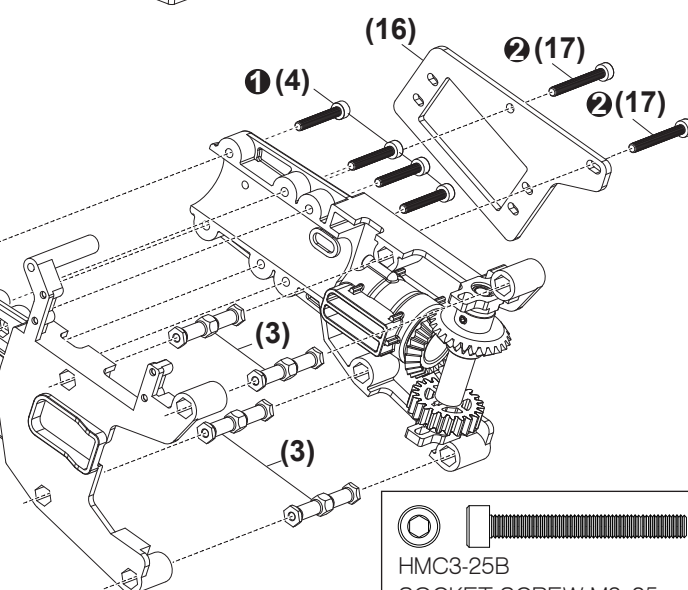
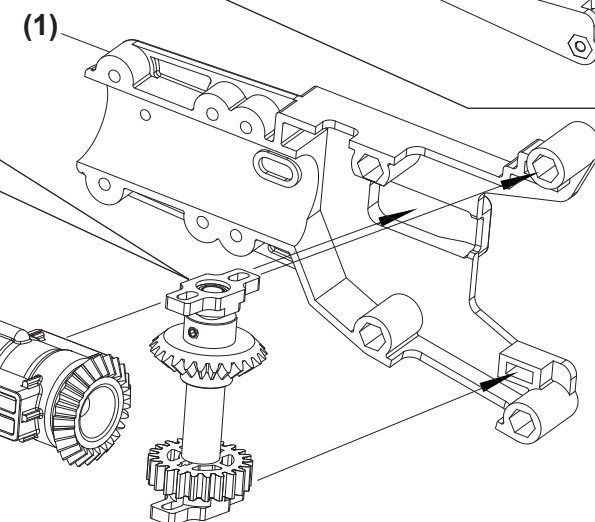
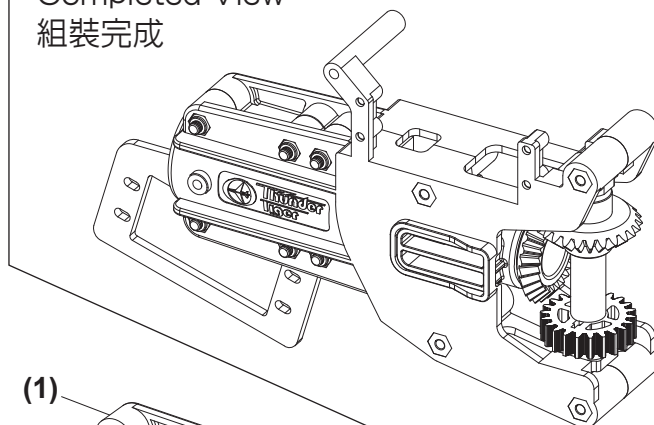
HMY2-12
PIN, d2x12
軸承滾針, d2x12

Assemble the Tail Boom Bracket as drawing. Secure the Screws but do not tighten at this step.

參考圖示組裝尾管固定座，螺絲只需稍事固定，暫無需鎖緊。



Completed View
組裝完成



Check the mesh of Gears (#7 & #10) after this step accomplished, if the mesh is too much play, please add the Washers to eliminate the play for a proper mesh.

完成尾管固定座組裝步驟後，請檢查齒輪間隙，若間隙過大，請加裝所附墊片進行調整，以獲得適當的齒輪間隙。



Assemble in right order
依標示順序組裝



HMC3-25B
SOCKET SCREW, M3x25
內六角螺絲, M3x25

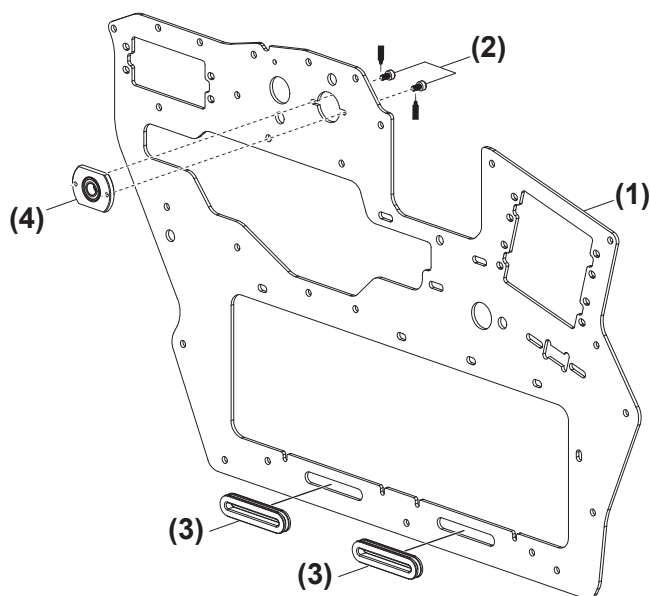
No.	Material No.	Description	名稱	Qty
1	BK2255	SIDE FRAME	機身側板	2
2	HMC2-4B	SOCKET SCREW,M2x4	內六角螺絲,M2x4	4
3	BK2551	RUBBER GROMMETS	橡膠墊圈	4

No.	Material No.	Description	名稱	Qty
4	BV2238	ELEVATOR WASHER MOUNT SET(L)	升降舵墊片座組(左)	1
5	BV2237	ELEVATOR WASHER MOUNT SET(R)	升降舵墊片座組(右)	1

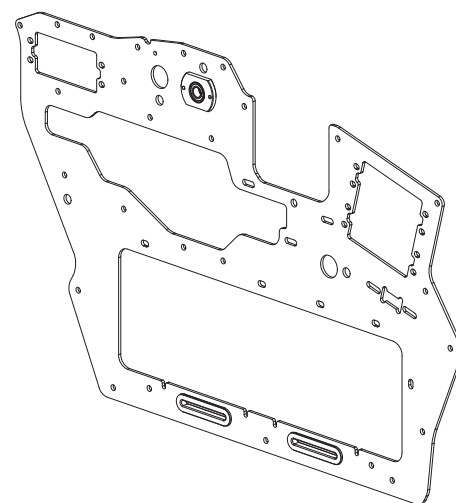


HMC2-4B
內六角螺絲,M2x4
SOCKET SCREW,M2x4

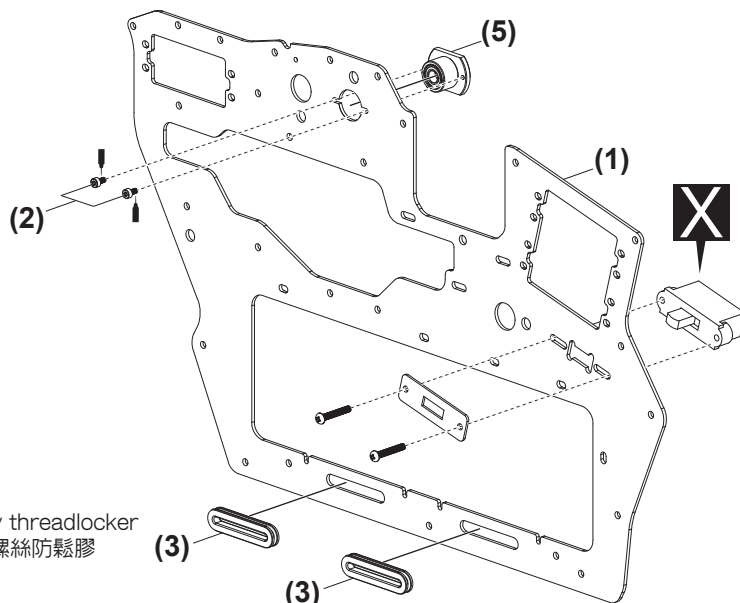
Left Frame / 左側板



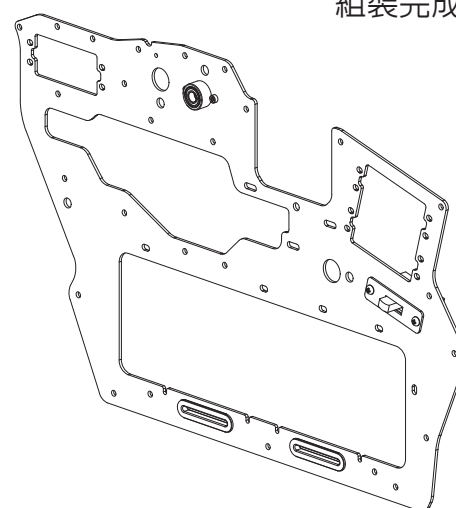
Completed View 組裝完成



Right Frame / 右側板



Completed View 組裝完成



Apply threadlocker
使用螺絲防鬆膠



Must be purchased separately
改裝品需另購



No.	Material No.	Description	名稱	Qty
1	BK2225	LOWER BRG	下軸承座	1
2	HMV6800ZZY	BEARING, d10xD19xW5	滾珠軸承, d10xD19xW5	1
3	BK2219	FRAME SPACER	六角連接支柱	6
4	BV2262	LOWER MOTOR MOUNT SET	馬達下座組	1
5	BK2270	RECEIVER TRAY	接收機座	1

No.	Material No.	Description	名稱	Qty
6	BK2273	CONTROL ARM TRAY	控制搖臂座	2
7	HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	10
8	HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	22
9	BK0087	WASHER, d3xD8xW1.4	墊片, d3xD8xW1.4	18
10	BK2259	SERVO FRAME B	伺服機座B	1



BK0087
WASHER, d3xD8xW1.4
墊片, d3xD8xW1.4



HMC3-10B
SOCKET SCREW, M3x10
內六角螺絲, M3x10

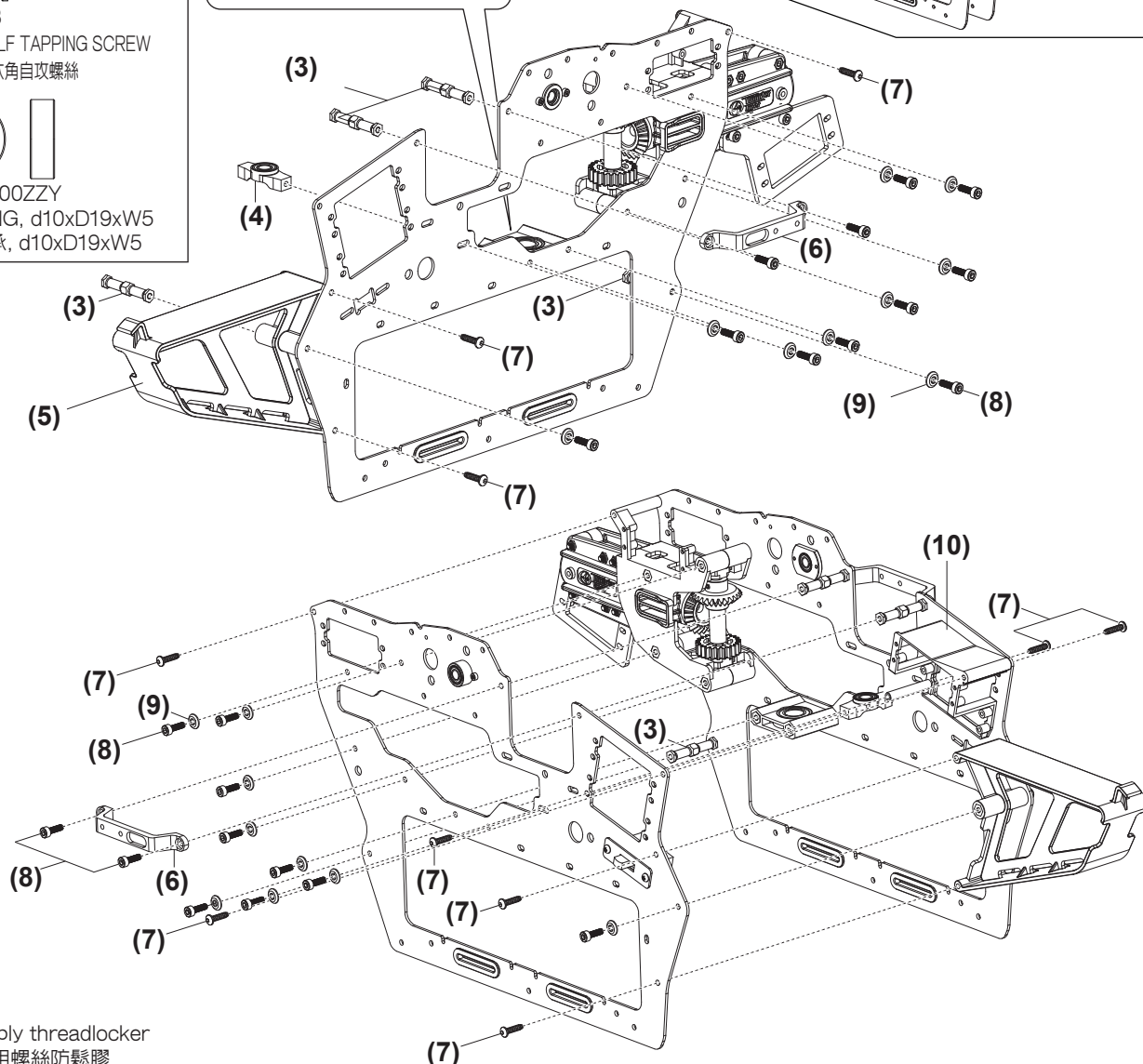
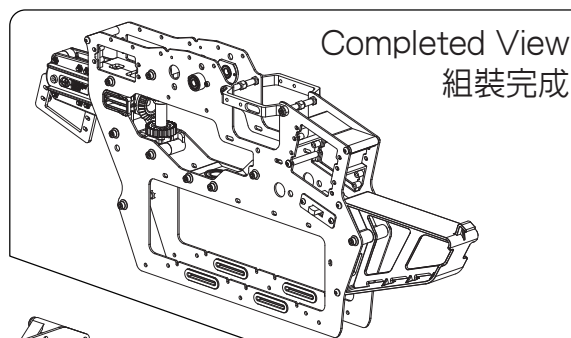
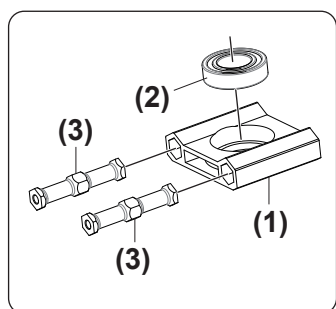


HNX3-12B
S.B.H SELF TAPPING SCREW
半圓頭內六角自攻螺絲



HMC6800ZZY
BEARING, d10xD19xW5
滾珠軸承, d10xD19xW5

Secure all screws shown on this page with a drop of threadlocker except the screws #7.
除螺絲 # 7 之外，本頁顯示之螺絲請使用適量防鬆膠鎖固。



Apply threadlocker
使用螺絲防鬆膠



No.	Material No.	Description	名稱	Qty
1	BK0023	ELEVATOR CONTROL ARM LINK	升降舵連接座	1
2	BK0084	PIN,D2x22.8	固定銷,D2x22.8	1
3	BK2514	METAL ELEVATOR CONTROL ARM	金屬升降舵控制臂	1
4	HME3-3B	SET SCREW,M3x3	無頭內六角螺絲,M3x3	1
5	HME3-8B	SET SCREW,M3x8	無頭內六角螺絲,M3x8	1
6*	BK2161	ELEVATOR LEVER ROD, 4756	升降舵推桿, 4756	1
	BK2571	FL ELEVATOR LEVER ROD, 4757	無平衡翼升降舵推桿, 4757	1
7	BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲(A)	2
8	BK2515	COLLAR,d3xD5xW4.2	控制臂軸環,d3xD5xW4.2	1
9	HMC3-10B	SOCKET SCREW,M3x10	內六角螺絲,M3x10	3

No.	Material No.	Description	名稱	Qty
10	BK2261	LANDING SKID	腳架	2
11	BK0064T	SKID PIPE	底座圓管	2
12	BK0065	SKID PIPE END CAP	圓管塞	4
13	HME4-5B	SET SCREW,M4x5	無頭內六角螺絲,M4x5	4
14	HMC3-14B	SOCKET SCREW,M3x14	內六角螺絲,M3x14	4
15	BK2258	BOTTOM FRAME	底盤	1
16	BK2274	BATTERY TRAY	電池座	1
17	BK2253	FRAME SPACER	六角支柱	1
18	HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	6

Secure all screws shown on this page with a drop of threadlocker except the screws #13, 14 & 18.
除螺絲 # 13, 14及18之外，本頁顯示之螺絲請使用適量防鬆膠鎖固。



The larger hole goes toward the swashplate.
較大孔面朝十字盤



HME3-3B
SET SCREW,M3x3
無頭內六角螺絲,M3x3



HME3-8B
SET SCREW,M3x8
無頭內六角螺絲,M3x8



BK0649-1
LINKAGE BALL (A)
內六角連接頭螺絲(A)



HME4-5B
SET SCREW,M4x5
無頭內六角螺絲,M4x5



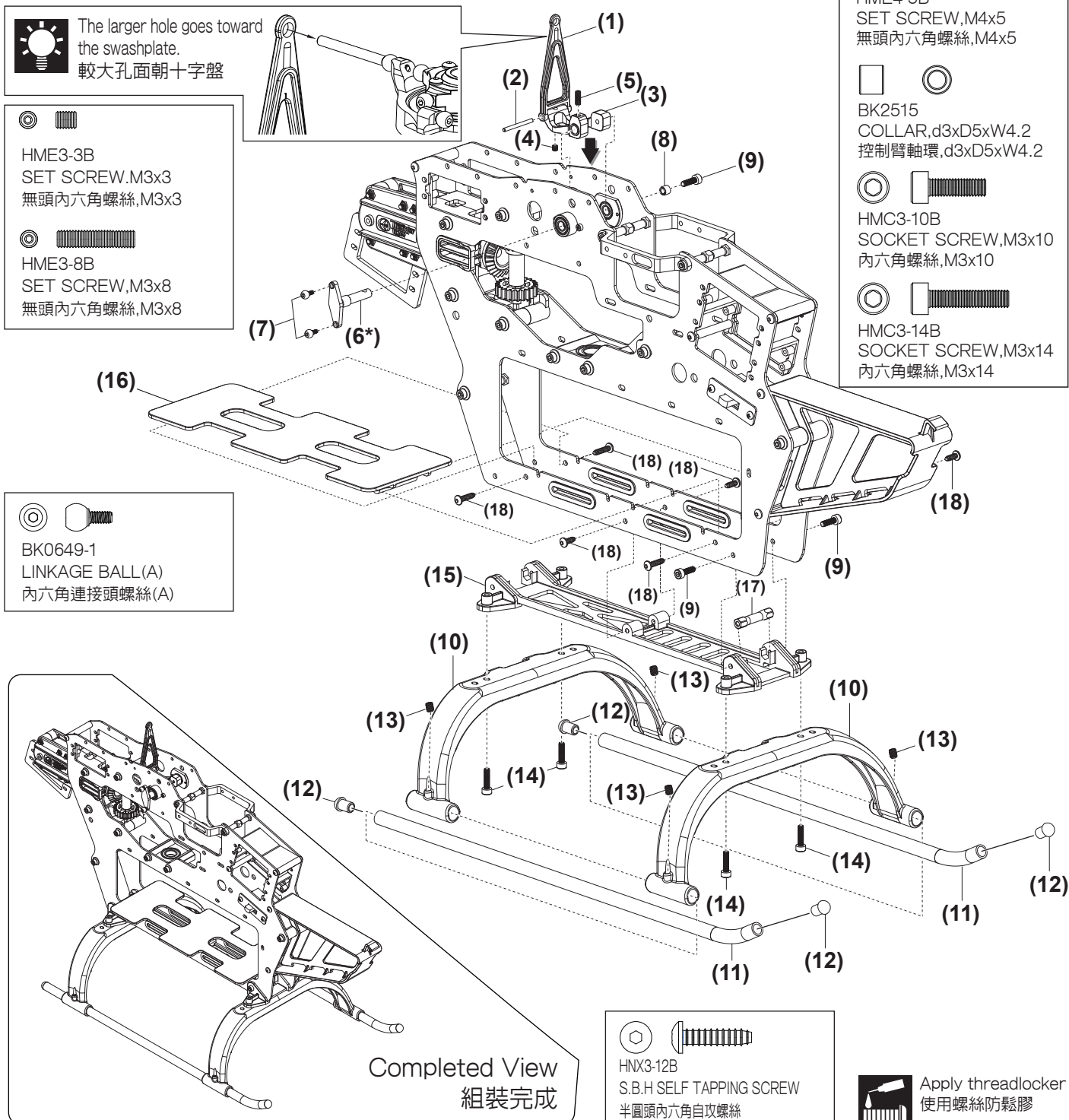
BK2515
COLLAR,d3xD5xW4.2
控制臂軸環,d3xD5xW4.2



HMC3-10B
SOCKET SCREW,M3x10
內六角螺絲,M3x10



HMC3-14B
SOCKET SCREW,M3x14
內六角螺絲,M3x14



HNX3-12B
S.B.H SELF TAPPING SCREW
半圓頭內六角自攻螺絲



Apply threadlocker
使用螺絲防鬆膠



No.	Material No.	Description	名稱	Qty
1	BK2282	ONE WAY BEARING SHAFT	單向軸套	1
2	BV2281	ONE WAY CLUTCH HOUSING	單向離合組	1
3	BK2581	MAIN GEAR, 135T	主齒輪, 135T	1
4	HSA3-8	BUTTON HEAD SOCKET SCREW,M3x8	半圓頭內六角螺絲,M3x8	4
5	BK2524	MAIN GEAR WASHER	主齒輪墊片	1
6	BK2582	AUTOROTATION TAIL DRIVE PULLEY,100T	軸傳尾驅動主齒,100T	1

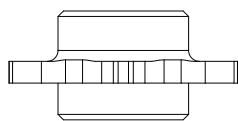
No.	Material No.	Description	名稱	Qty
7	HMC3-10B	SOCKET SCREW,M3x10	內六角螺絲,M3x10	4
8	BK0087	WASHER,d3xD8xW1.4	墊片,d3xD8xW1.4	4
9	BK1197	MAIN SHAFT BOLT,M3x20	內六角半牙螺絲,M3x20	1
10	BK2290	COLLAR	軸環	1
11	HMM3Z	NYLON NUT,M3	止鬆螺帽,M3	1

Secure all screws shown on this page with a drop of threadlocker.

本頁顯示之螺絲請使用適量防鬆膠鎖固。



Note the chamfer should point up.
注意有倒角端朝上



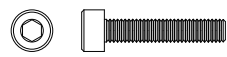
BV2281



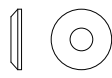
HSA3-8
BUTTON HEAD SOCKET SCREW,M3x8
半圓頭內六角螺絲,M3x8



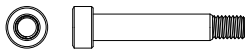
BK2524
MAIN GEAR WASHER,d14.2xD19xW0.5
主齒輪墊片,d14.2xD19xW0.5



HMC3-10B
SOCKET SCREW,M3x10
內六角螺絲,M3x10



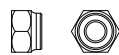
BK0087
WASHER,d3xD8xW1.4
墊片,d3xD8xW1.4



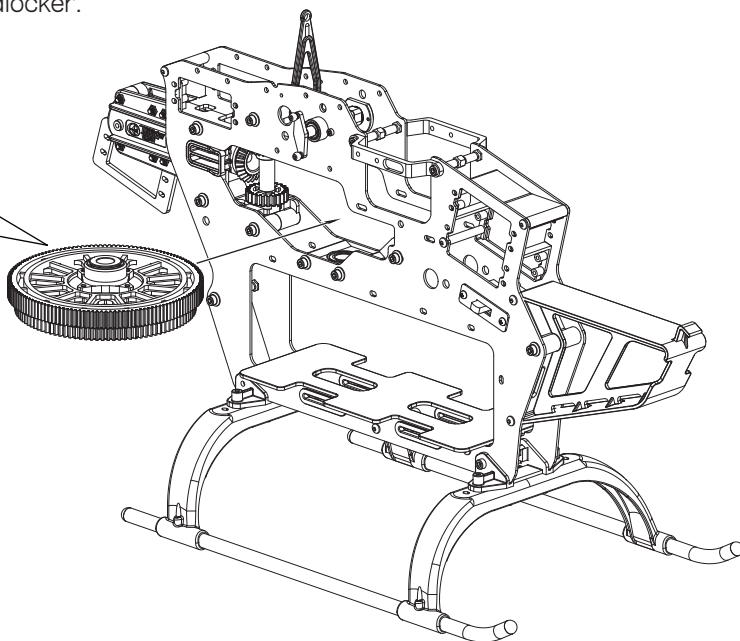
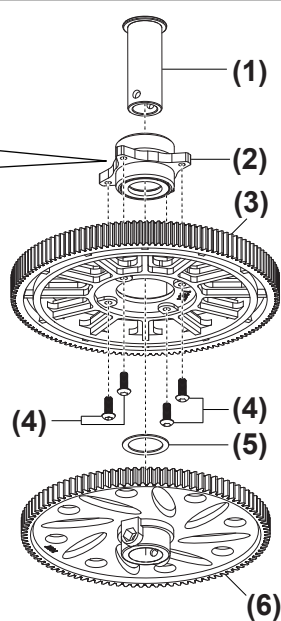
BK1197
MAIN SHAFT BOLT,M3x20
內六角半牙螺絲,M3x20



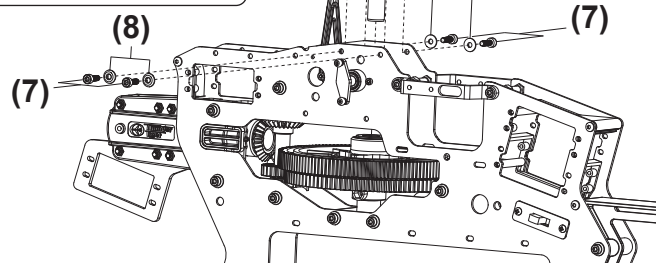
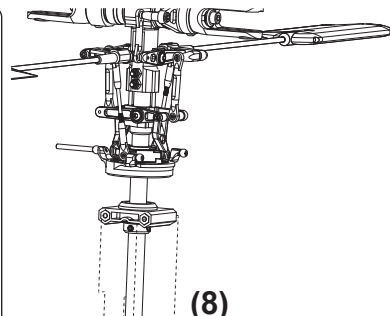
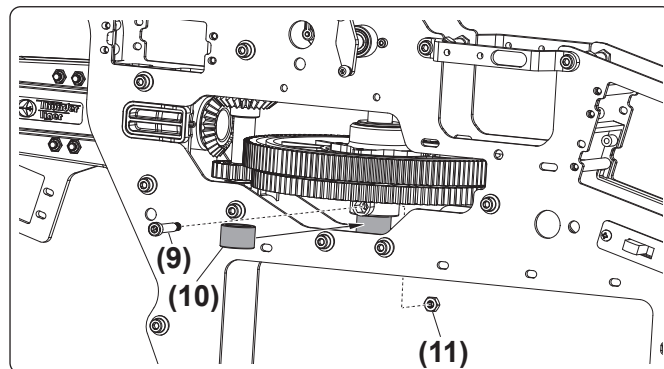
BK2290
COLLAR,d10xD14xW9
軸環,d10xD14xW9



HMM3Z
NYLON NUT,M3
止鬆螺帽,M3



1. Insert the Main Shaft into Main Gear Set, Main Gear Washer & Lower Bearing Block.
 2. Line up the holes of the Autorotation Tail Drive Gear, One Way Bearing Shaft & Main Shaft, and then insert the Socket Screw to fix them with a Nut. Add a drop of threadlocker when securing, but do not over tighten.
1. 將主軸依序穿過主齒輪組、主齒輪墊片及下軸承座。
2. 對正尾驅動齒、單向軸套及主軸上孔位後，穿入內六角螺絲並加上螺帽，並使用適量防鬆劑固定。注意！請勿過度緊迫螺絲。



Apply threadlocker
使用螺絲防鬆膠



No.	Material No.	Description	名稱	Qty
1	BK2248	PHASING CONTROL TRACK	相位控制導軌	1
2	BK2249	CANOPY RETAINING POST	機殼固定鋁柱	2
3	HME3-18B	SET SCREW, M3x18	無頭內六角螺絲, M3x18	2
4	HMC2-4B	SOCKET SCREW, M2x4	內六角螺絲, M2x4	2
5	BK2271	GYRO TRAY	陀螺儀座	1
6	HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	4
7*	BV2538-1	120° CONTROL ARM SET-R, 4756	120° 金屬控制搖臂(右), 4756	1
	BV2569-R	120° FB CONTROL ARM SET-R, 4757	120° 無平衡翼控制搖臂組(右), 4757	1
8*	BV2539-1	120° CONTROL ARM SET-L, 4756	120° 金屬控制搖臂(左), 4756	1
	BV2570-L	120° FB CONTROL ARM SET-L, 4757	120° 無平衡翼控制搖臂組(左), 4757	1
9	BK2279	HEX POST	內六角連接頭	2

No.	Material No.	Description	名稱	Qty
10	BK0649-1	LINKAGE BALL	內六角連接頭螺絲	4
11	BK0088	WASHER, d3xD5xW0.5	墊片, d3xD5xW0.5	2
12	BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	2
13	HSA3-10	BUTTON HEAD SOCKET SCREW, M3x10	半圓頭內六角螺絲, M3x10	2
14	BK2552	TAIL DRIVE SHAFT	尾驅動軸	1
15	BK0367	TAIL DRIVE SHAFT LINKER	尾驅動連接棒	2
16	BK2529	TAIL DRIVE SHAFT BRG	傳動軸軸承套	1
17	HMV1680ZZY	BEARING, d8xD16xW5	滾珠軸承, d8xD16xW5	1
18	HMC2512B	SOCKET SCREW, M3x12	內六角螺絲, M2.5x12	2
19	HMM25Z	NYLON NUT, M2.5	止鬆螺帽, M2.5	2



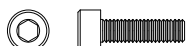
HME3-18B
SET SCREW, M3x18
無頭內六角螺絲, M3x18



HMC2-4B
SOCKET SCREW, M2x4
內六角螺絲, M2x4



HNX3-12B
S.B.H SELF TAPPING SCREW
半圓頭內六角自攻螺絲



HMC3-12B
SOCKET SCREW, M3x12
內六角螺絲, M3x12



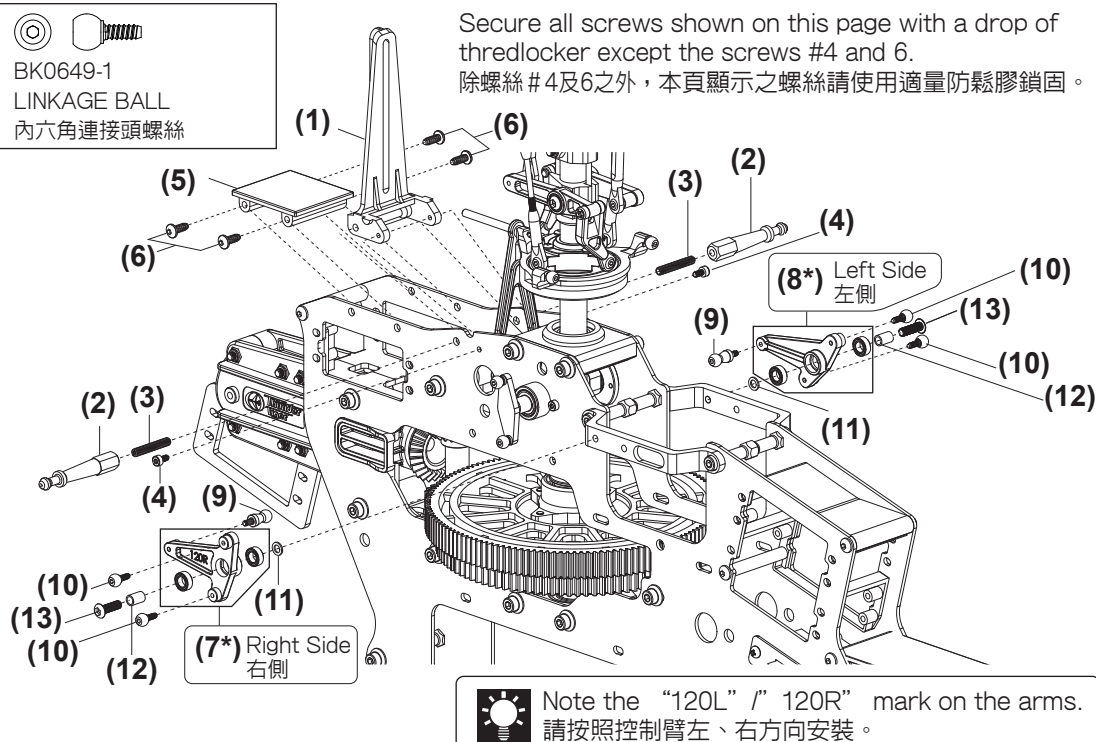
HMM25Z
NYLON NUT, M2.5
止鬆螺帽, M2.5



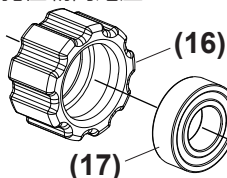
BK0077
COLLAR, d3xD4xW6
軸環, d3xD4xW6



BK0649-1
LINKAGE BALL
內六角連接頭螺絲



The hole with a round chamfer goes toward the tail.
有倒角的孔徑朝向尾座。



Apply C.A Glue
使用快乾膠黏合



Apply threadlocker
使用螺絲防鬆膠

1. Attach the Bearing into the Rubber Bearing Support.
2. Screw the Shaft End onto the Tail Drive Shaft with a drop of threadlocker as the drawing, but do not over tighten.
3. Add a drop of thin CA glue on the Tail Drive Shaft next to where the bearing should be, and then slide the bearings over the position quickly; the distance from the Shaft Drive End to the Rubber Shaft Bearing Support is approx. 350mm / 13.78" .
4. Apply some amount of silicon oil or Vaseline onto the rubber surface for easy install into the tail boom later.

1. 將軸承擠壓入橡膠軸套內。
2. 參考圖示，塗抹些許防鬆膠將尾傳動軸接頭鎖在尾傳動軸，但勿過度鎖緊。
3. 在尾傳動軸上軸承固定位置前方，塗抹少量快乾膠，迅速滑動軸承至定位固定；該定位大約距離軸傳動接頭350mm / 13.78" 處。
4. 塗抹些許矽膠油脂或凡士林於橡膠軸套表面上，稍後將尾驅動軸組裝入尾管時，會較為容易。

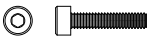


No.	Material No.	Description	名稱	Qty
1	BK0028	TAIL PITCH CONTROL SLIDER BUSHING	尾旋翼控制軸套	1
2	HMV1060ZZY	BEARING, d6xD10xW3	滾珠軸承, d6xD10xW3	2
3	BK0027	TAIL PITCH CONTROL SLIDER	尾旋翼控制滑座	1
4	BK0025	TAIL PITCH CONTROL FORK	尾旋翼控制座	1
5	HMF2-8N	PHILLIPS MACHINE SCREW, M2x8	圓頭十字螺絲(細), M2x8	1
6	BK0075	LINK BALL, Ø4.8	連接頭, Ø4.8	1
7	BK2280	TAIL ROTOR SHAFT	尾旋翼橫軸(軸傳)	1
8	HME3-3B	SET SCREW, M3x3	無頭內六角螺絲, M3x3	2
9	BK2284	TAIL ROTOR HUB	尾旋翼T型座	1
10	BK2580	METAL TAIL GRIP	金屬尾旋翼座	2

No.	Material No.	Description	名稱	Qty
11	HMV1050ZZWY	BEARING, d5xD10xW3	滾珠軸承, d5xD10xW3	2
12	BK0082	COLLAR, d2xD3xW4.2	軸環, d2xD3xW4.2	2
13	HMC2-10B	SOCKET SCREW, M2×10	內六角螺絲, M2×10	2
14	BK0083	PIN, D2x8.8	固定銷, D2x8.8	2
15	BK0026	TAIL PITCH CONTROL LINK	尾旋翼連接頭	2
16	HMC25-6B	SOCKET SCREW, M2.5x6	內六角螺絲, M2.5x6	2
17	HMO26	WASHER, d2.8xD5xW0.5	墊片, d2.8xD5xW0.5	4
18	BK2276	WASHER, d4xD6xW0.5	尾旋翼轉座墊片, d4xD6xW0.5	2
19	HMV940ZZY	BEARING, d4xD9xW4	滾珠軸承, d4xD9xW4	2
20	HMX0409Y	THRUST BEARING, d4xD9xW4	止推軸承, d4xD9xW4	2



HMF2-8N
PHILLIPS MACHINE SCREW, M2x8
圓頭十字螺絲(細), M2x8



HMC2-10B
SOCKET SCREW, M2×10
內六角螺絲, M2×10



HMC25-6B
SOCKET SCREW, M2.5×6
內六角螺絲, M2.5×6



HME3-3B
SET SCREW, M3x3
無頭內六角螺絲, M3x3



BK0083
PIN, D2x8.8
固定銷, D2x8.8



HMO26
WASHER, d2.8xD5xW0.5
墊片, d2.8xD5xW0.5



BK0082
COLLAR, d2xD3xW4.2
軸環, d2xD3xW4.2



BK2276
WASHER, d4xD6xW0.5
尾旋翼轉座墊片, d4xD6xW0.5



HMV1060ZZY
BEARING, d6xD10xW3
滾珠軸承, d6xD10xW3



HMV1050ZZWY
BEARING, d5xD10xW3
滾珠軸承, d5xD10xW3



HMV940ZZY
BEARING, d4xD9xW4
滾珠軸承, d4xD9xW4



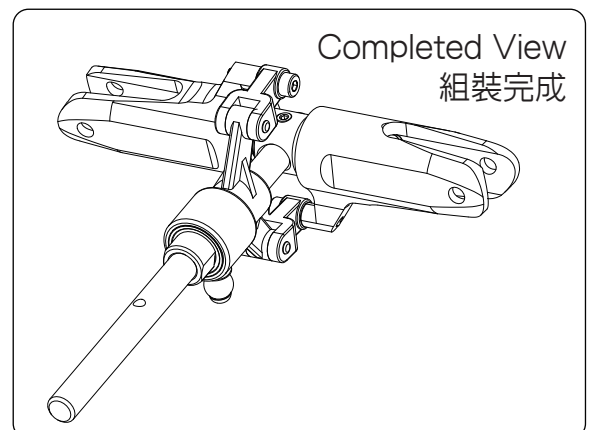
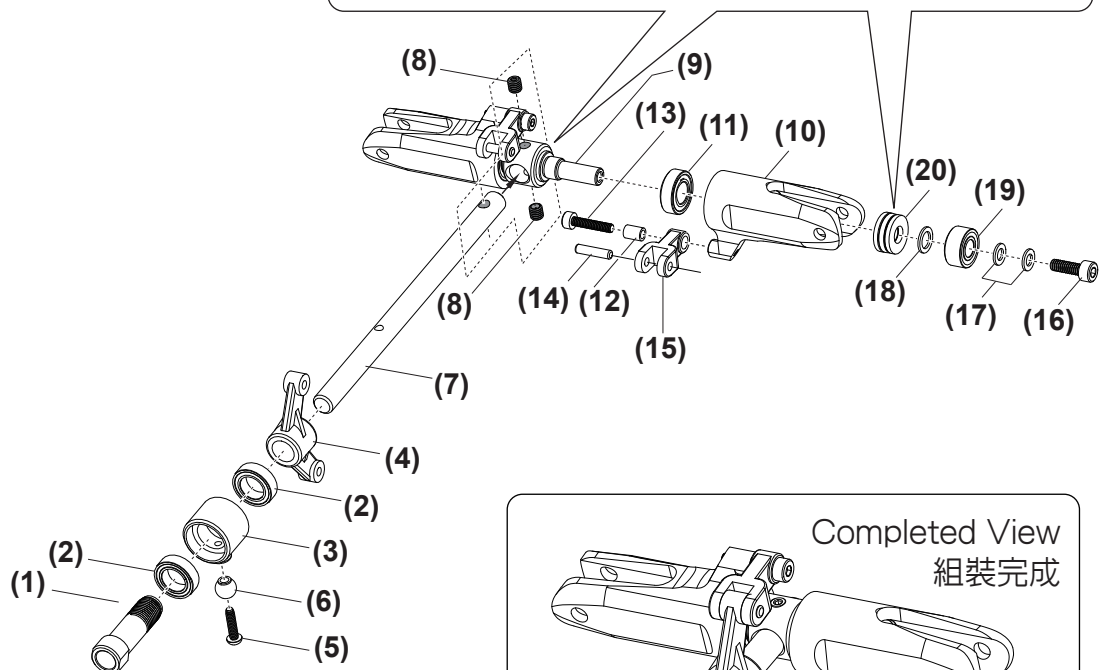
HMX0409Y
THRUST BEARING, d4xD9xW4
止推軸承, d4xD9xW4

Secure all screws shown on this page with a drop of threadlocker except the screws #5.

除螺絲 # 5 之外，本頁顯示之螺絲請使用適量防鬆膠鎖固。



- Note the orientation of the Thrust Bearings; please refer page 8, Diagram for Thrust Bearing Assembly.
 - Line up the concave of Tail Rotor Shaft and the hole of Hub when securing the Tail Rotor Hub onto the Tail Rotor Shaft.
 - Assemble the tail unit as drawing. Secure the screws with a drop of threadlocking but not over tighten, ensure the moveable parts run effortlessly.
1. 請參考第 8 頁止推軸承安裝示意圖，注意安裝方向性。
2. 將尾旋翼固定座鎖上尾旋翼主軸時，請注意軸上凹槽需對正固定座上螺絲孔。
3. 依圖示順序組裝。使用適量防鬆劑固定，但請勿過度鎖緊，確保每個可動機構皆作動順暢。



Apply threadlocker
使用螺絲防鬆膠



Ensure smooth, non-binding movement when assembling
確認組件靈活度



No.	Material No.	Description	名稱	Qty
1	BK2594	METAL TAIL UNIT HOUSING	金屬尾座	1
2	BK2595	METAL TAIL PITCH CONTROL HOUSING	尾旋翼控制桿座	1
3	HMC25-8B	SOCKET SCREW, M2.5x8	內六角螺絲, M2.5x8	1
4	HMV1350ZZY	BEARING, d5xD13xW4	滾珠軸承, d5xD13xW4	2
5	HMV6701ZZY	BEARING, d12xD18xW4	滾珠軸承, d12xD18xW4	2
6	BK2291	COLLAR, d15xD18x6.8L	軸環, d15xD18x6.8L	1
7	BK0372	TAIL INPUT GEAR	尾齒輪/INPUT-20T	1
8	BK0373-2	TAIL OUTPUT GEAR	尾齒輪/OUTPUT-20T	1
9	BA1144-1	WASHER, d5xD8xW0.15	軸承墊片, d5xD8xW0.15	1
10	HMY2-10	PIN, d2x10	固定銷, d2x10	1
11	BK2512	TAIL PITCH CONTROL LEVER	尾旋翼控制桿	1
12	HMV740ZZY	BEARING, d4xD7xW2.5	滾珠軸承, d4xD7xW2.5	2
13	BK0649-2	LINKAGE BALL (B)	內六角連接頭自攻螺絲(B)	1

No.	Material No.	Description	名稱	Qty
14	BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	1
15	HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	2
16	BK2190	CARBON VERTICAL FIN	碳纖維垂直尾翼	1
17	HMC3-6B	SOCKET SCREW, M3x6	內六角螺絲, M3x6	1
18	BK2503	TAIL ROTOR CASE BUTTON	尾管固定片	1
19	HMC2-5B	SOCKET SCREW, M2x5	內六角螺絲, M2x5	1
20	BK2556	CARBON TAIL BOOM	碳纖維尾管	1
21	BK2559	ROD GUIDE	固定環	3
22	HNN2-6B	TAPPING SCREW, M2x6	墊圈自攻螺絲, M2x6	3
23	HMC3-16B	SOCKET SCREW, M3x16	內六角螺絲, M3x16	2
24	HMM3Z	NYLON NUT (M3)	止鬆螺帽(M3)	2
25	BK0404-B	TAIL BLADE (BLACK)	尾旋翼(黑)	2
26	HME3-4B	SET SCREW M3x4	無頭內六角螺絲, M3x4	1



HMC25-8B
SOCKET SCREW, M2.5x8
內六角螺, M2.5x8



HMC1350ZZY
BEARING, d5xD13xW4
滾珠軸承, d5xD13xW4



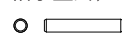
HMV6701ZZY
BEARING, d12xD18xW4
滾珠軸承, d12xD18xW4



BK2291
COLLAR, d15xD18x6.8L
軸環, d15xD18x6.8L



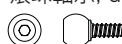
BA1144-1
WASHER, d5xD8xW0.15
軸承墊片, d5xD8xW0.15



HMY2-10
PIN, d2x10
固定銷, d2x10



HMV740ZZY
BEARING, d4xD7xW2.5
滾珠軸承, d4xD7xW2.5

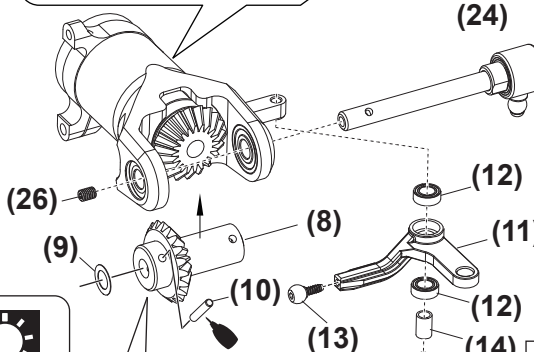
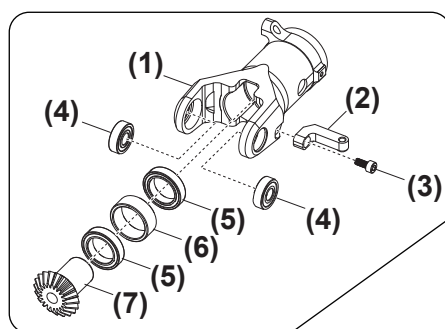


BK0649-2
LINKAGE BALL (B)
內六角連接頭自攻螺絲(B)

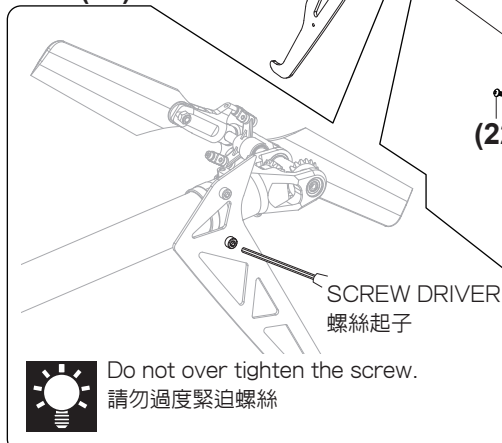
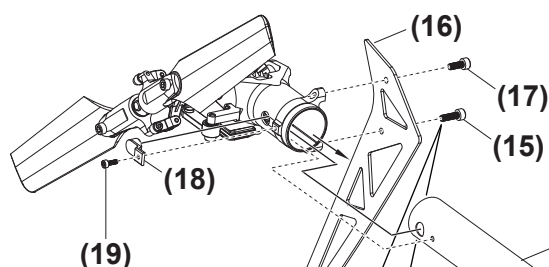


BK0077
COLLAR, d3xD4xW6
軸環, d3xD4xW6

Secure all screws shown on this page with a drop of threadlocker except the screws #13, 22 & 23.
除螺絲 # 13, 22 及 23 之外, 本頁顯示之螺絲請使用適量防鬆膠鎖固。



Check the mesh of #7 & #8, please add the Washers (#9) for a proper mesh if too much play.
請檢查#7及#8的齒輪間隙, 間隙過大時請酌加墊片(#9)。



SCREW DRIVER
螺絲起子



Do not over tighten the screw.
請勿過度緊迫螺絲



Apply threadlocker
使用螺絲防鬆膠



HMC3-10B
SOCKET SCREW, M3x10
內六角螺絲, M3x10



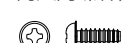
HME3-4B
SET SCREW, M3x4
無頭內六角螺絲, M3x4



HMC3-6B
SOCKET SCREW, M3x6
內六角螺絲, M3x6



HMC2-5B
SOCKET SCREW, M2x5
內六角螺絲, M2x5



HNN2-6B
TAPPING SCREW (W/WASHER) M2x6
圓頭墊圈自攻螺絲 M2x6



HMC3-16B
SOCKET SCREW, M3x16
內六角螺絲, M3x16



HMM3Z
NYLON NUT (M3)
止鬆螺帽(M3)



No.	Material No.	Description	名稱	Qty
1	BK2253	FRAME SPACER	六角支柱	1
2	HMC3-14B	SOCKET SCREW, M3x14	內六角螺絲, M3x14	2
3	HSA3-6	BUTTON HEAD SOCKET SCREW, M3x6	半圓頭內六角螺絲, M3x6	2
4	BK2563	METAL TAIL SUPPORT BRACKET(UPPER)	金屬固定座(上)	1
5	BK2564	METAL TAIL SUPPORT BRACKET(LOWER)	金屬固定座(下)	1
6	BK0524-T	TAIL SUPPORT ROD	尾管支撐架	2
7	BK0447	TAIL SUPPORT ROD END	尾管支撐架接頭	4

No.	Material No.	Description	名稱	Qty
8	HMJ2-8N	SELF TAPPING SCREW, M2x8	自攻螺絲(細), M2x8	4
9	HMC3-16B	SOCKET SCREW, M3x16	內六角螺絲, M3x16	2
10	HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	3
11	BK2553	SUPPORT BRACKET	支撐架	2
12	HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	1
13	HNJ-1	NYLON STRAP, 100mm	束帶(小)	4



HMM3Z
NYLON NUT, M3
止鬆螺帽, M3



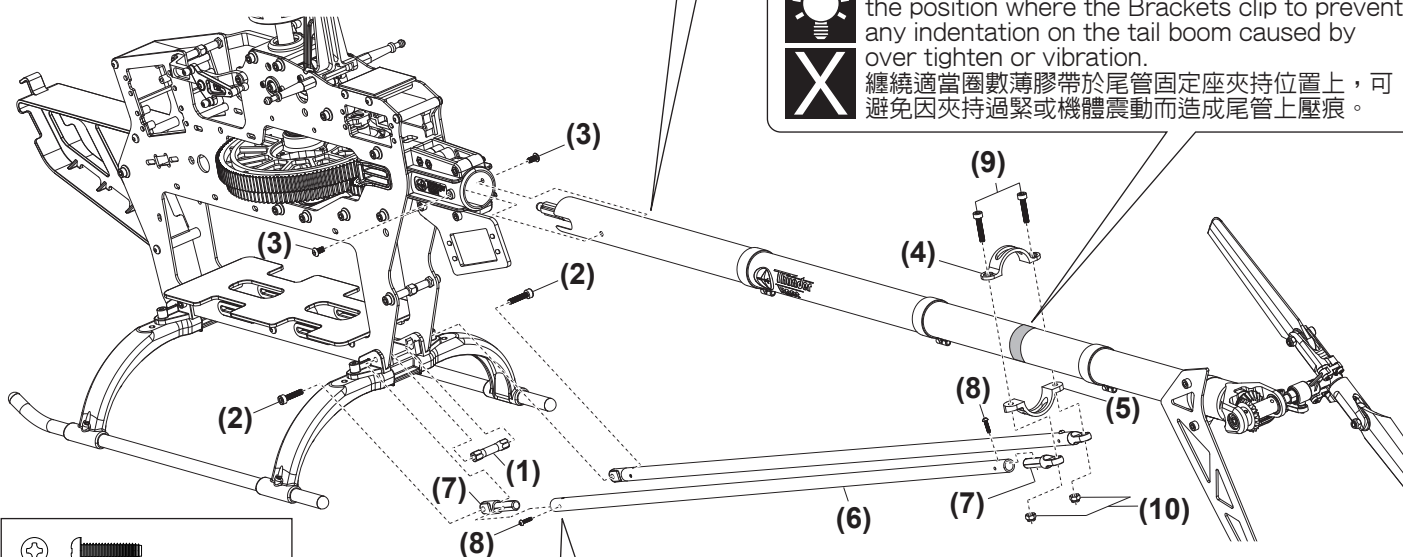
Ensure the setting screws (#3) line up to the retaining hole.
鎖固時，請確認鎖固螺絲#3正確對正定位孔。



Stick some cycles of thin tape properly onto the position where the Brackets clip to prevent any indentation on the tail boom caused by over tighten or vibration.



纏繞適當圈數薄膠帶於尾管固定座夾持位置上，可避免因夾持過緊或機體震動而造成尾管上壓痕。



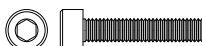
HMJ2-8N
SELF TAPPING SCREW-M2x8
自攻螺絲(細)-M2x8



HSA3-6
BUTTON HEAD SOCKET SCREW, M3x6
半圓頭內六角螺絲, M3x6



HMC3-14B
SOCKET SCREW, M3x14
內六角螺絲, M3x14



HMC3-16B
SOCKET SCREW, M3x16
內六角螺絲, M3x16

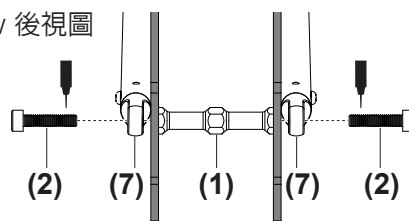


HMC3-10B
SOCKET SCREW, M3x10
內六角螺絲, M3x10



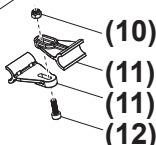
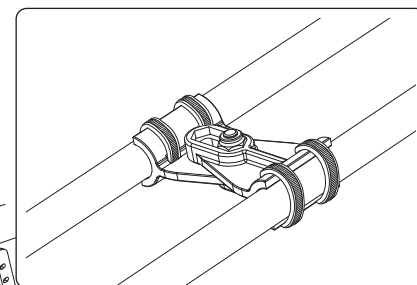
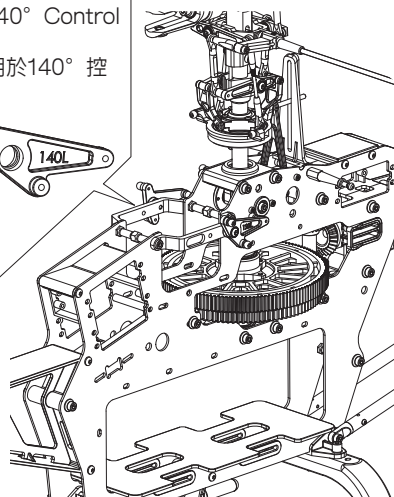
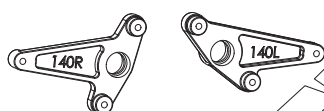
Rear View 後視圖

Secure the screws into the Frame Spacer when attaching the Tail Support Rod End on the Main Frames.
安裝尾管支撐桿於側板上時，請注意需將鎖固螺絲鎖固於六角固定支柱上。



Apply threadlocker
使用螺絲防鬆膠

This hole (Left & Right side both) is design for 140° Control Arms(PV1409)
此孔位(左右二側)用於140°控制搖臂(PV1409)



Must be purchased separately
改裝品需另購



No.	Material No.	Description	名稱	Qty
1	HSE2614N	BUTTON PHILLIPS TAPPING SCREW, M2.6X14	扁圓自攻螺絲, M2.6x14	8
2	BK0104	SERVO MOUNTING	伺服機固定片	8
3	BK2205	SERVO BLOCK	伺服機墊塊	4

No.	Material No.	Description	名稱	Qty
4	HSE2620N	BUTTON PHILLIPS TAPPING SCREW, M2.6X20	扁圓自攻螺絲(粗), M2.6x20	8
5	BK3132	SERVO NUT	伺服機螺帽	2



HSE2614N

BUTTON PHILLIPS TAPPING SCREW, M2.6X14

扁圓自攻螺絲(粗), M2.6X14



HSE2620N

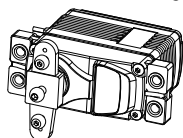
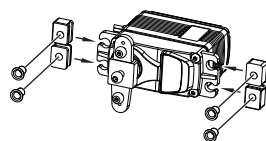
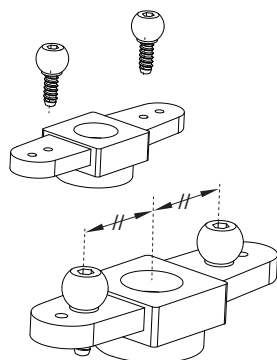
BUTTON PHILLIPS TAPPING SCREW, M2.6X20

扁圓自攻螺絲(粗), M2.6X20

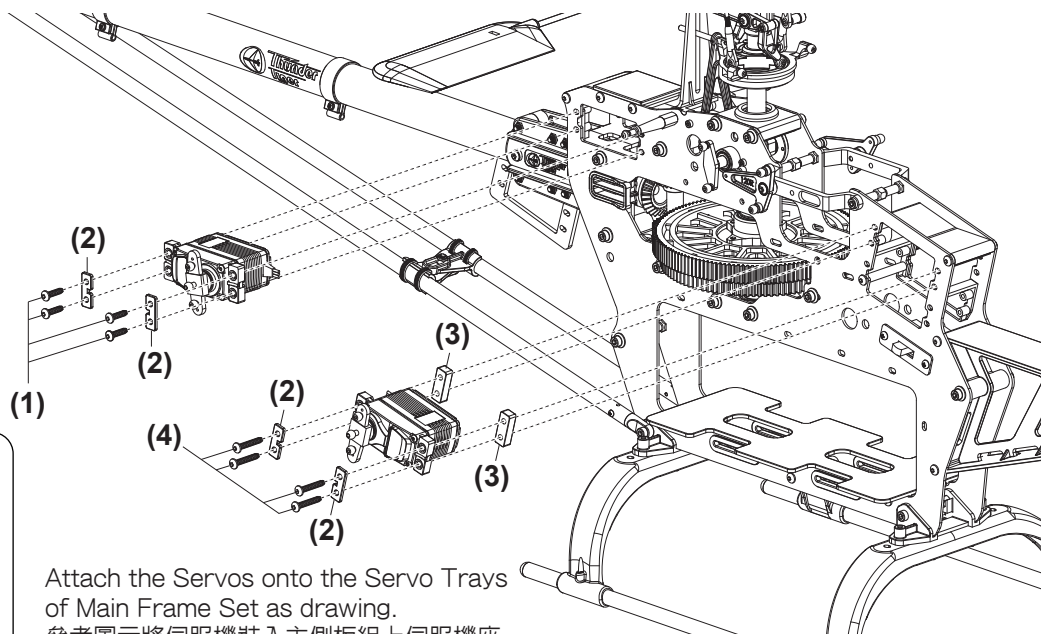


The distance from the center of the servo horn to both sides of the linkage balls should be the same.

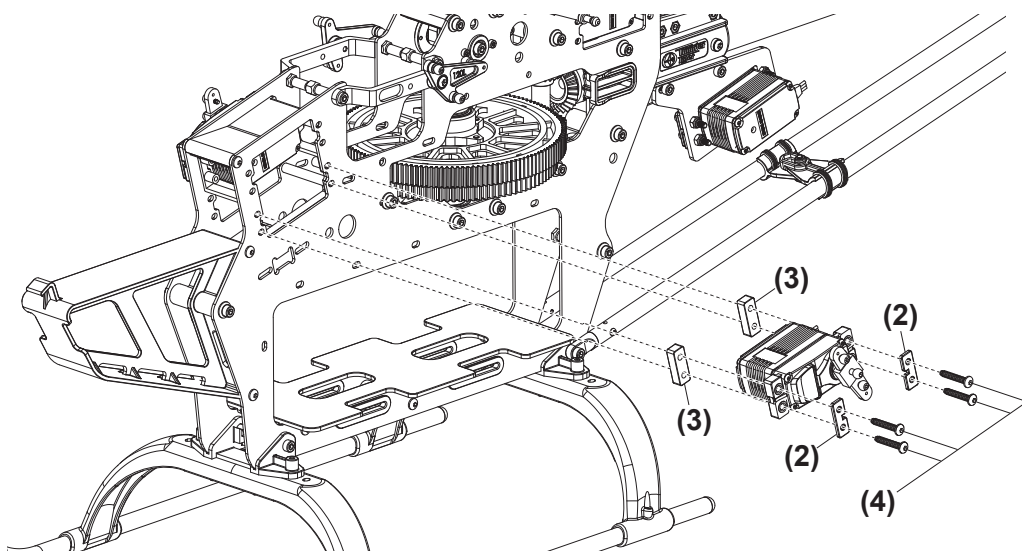
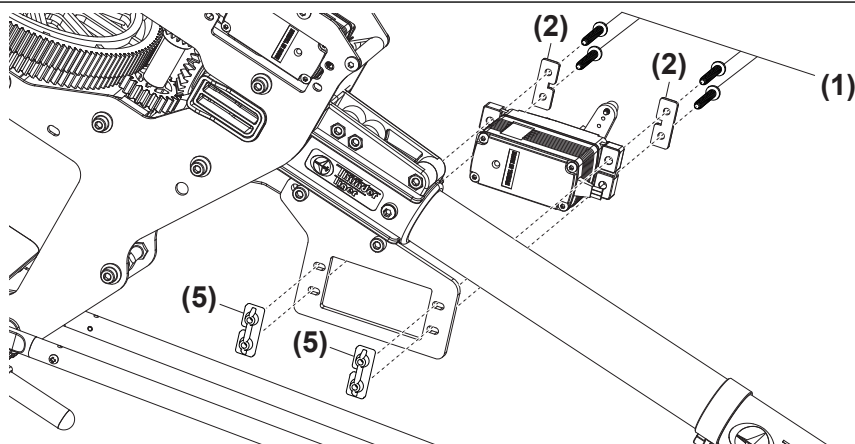
伺服機擺臂中心至兩邊球頭距離必需相等。



Must be purchased separately
改裝品需另購



Attach the Servos onto the Servo Trays of Main Frame Set as drawing.
參考圖示將伺服機裝入主側板組上伺服機座。





No.	Material No.	Description	名稱	Qty
1	BK0086	BALL LINK, d4.8x20	單頭連接桿, d4.8x20	18
2	BK2555	TAIL SERVO LINKAGE ROD, 580mm	雙頭推拉桿, 580mm	1
3	BK0092	LINKAGE ROD, 30mm	連接桿, 30mm	2

No.	Material No.	Description	名稱	Qty
4	BK0436	LINKAGE ROD, 55mm	連接桿, 55mm	4
5	BK0845	LINKAGE ROD, 64mm	連接桿, 64mm	2

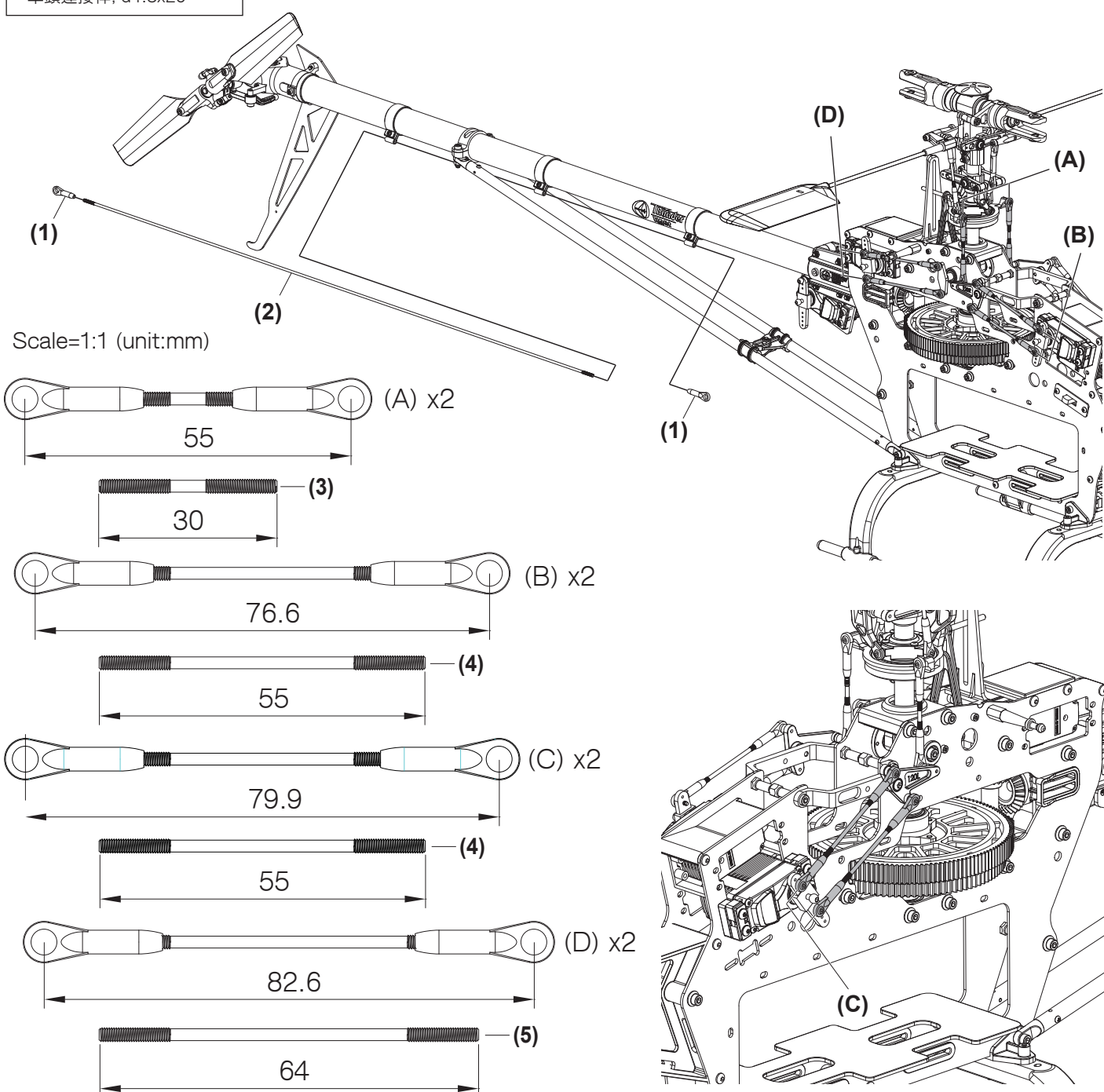


The length may vary when using different servo, please re-adjust the length as actual condition.
連桿長度可能因搭配伺服機品牌不同而有所差異，可依實際情況調整。



BK0086
BALL LINK, d4.8x20
單頭連接桿, d4.8x20

Assemble the Linkage Rods as drawings. The linkage length is measured by the center of the 2 Ball Links. These drawings are printed actual size; you can lay the linkage sets on the left drawings to measure the correct length.
請參考圖示組裝連桿及連桿頭。連桿長度距離的計算應以兩端連桿頭中心點為基準。圖示尺寸與實物相同，您可直接對照左方圖示以快速獲得正確長度。

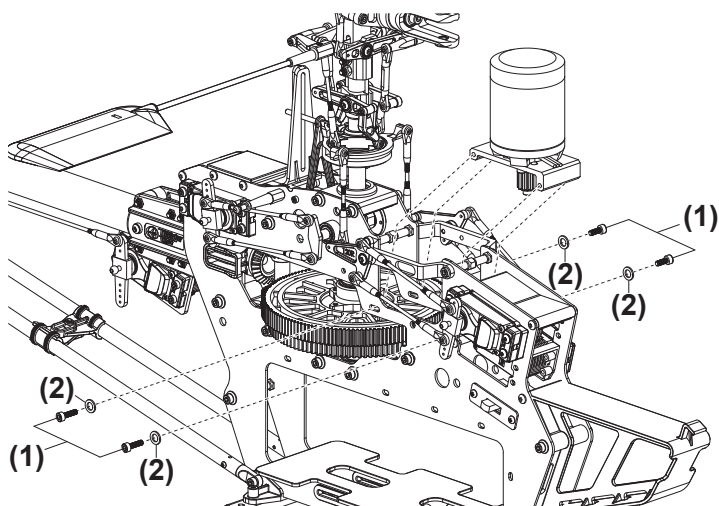




No.	Material No.	Description	名稱	Qty
1	HMC3-10B	SOCKET SCREW,M3x10	內六角螺絲, M3x10	4
2	BK0087	WASHER,d3xD8xW1.4	墊片, d3xD8xW1.4	4
3	BK2260	UPPER MOTOR MOUNT	馬達座上座	1

No.	Material No.	Description	名稱	Qty
4	BK2584	MOTOR PINION-15T	馬達齒-15T	1
5	HMC3-8B	SOCKET SCREW,M3x8	內六角螺絲, M3x8	4
6	HME4-3B	SET SCREW M4×3	無頭內六角螺絲, M4x3	2

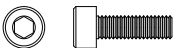
Secure all screws shown on this page with a drop of threadlocker.
本頁顯示之螺絲請使用適量防鬆膠鎖固。



HME4-3B
SET SCREW M4×3
無頭內六角螺絲 M4×3



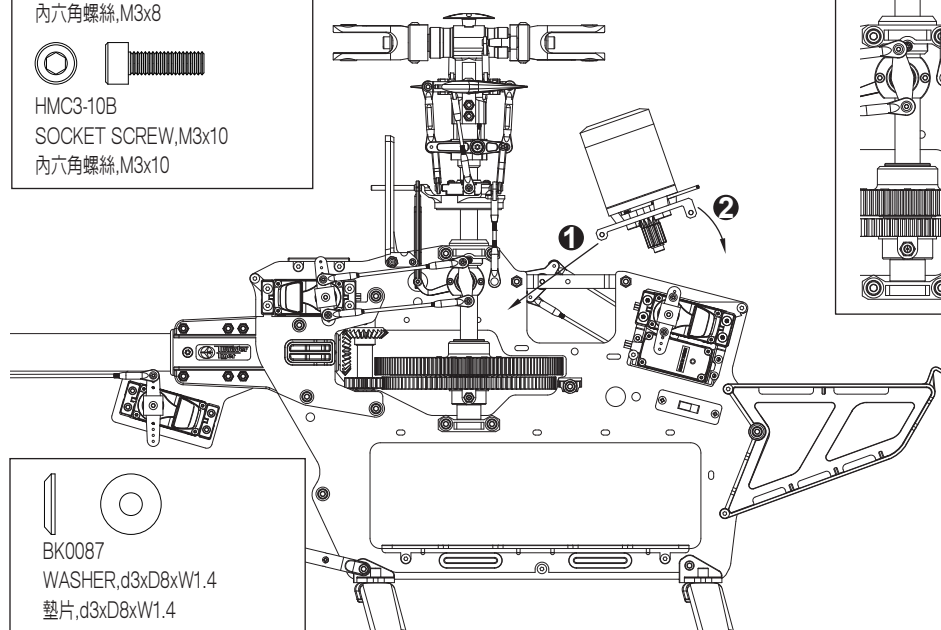
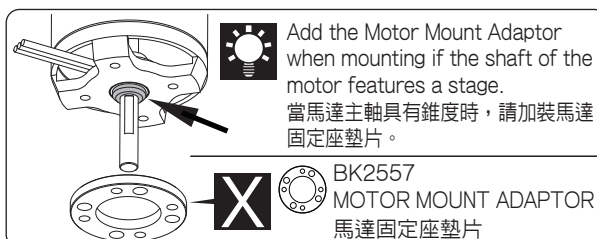
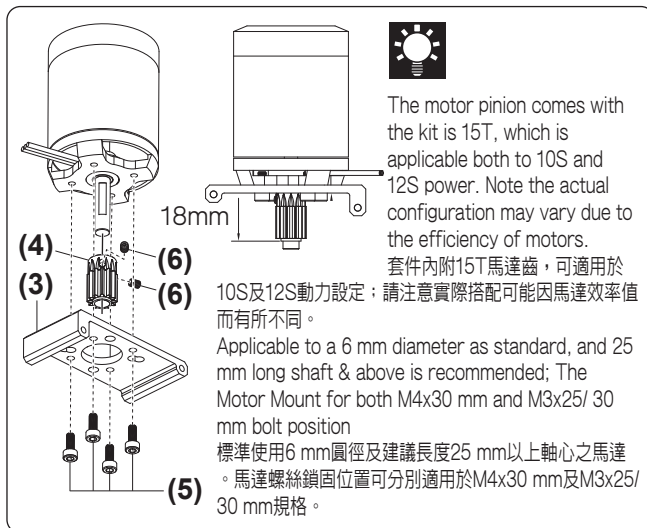
HMC3-8B
SOCKET SCREW,M3x8
內六角螺絲,M3x8



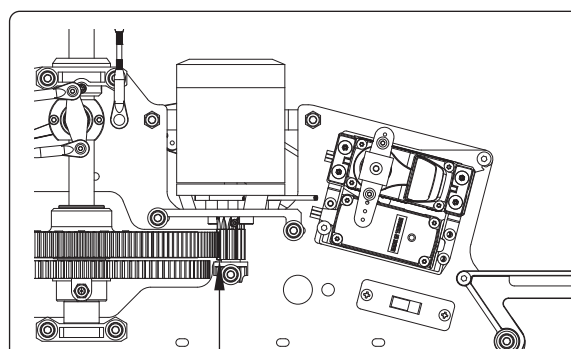
HMC3-10B
SOCKET SCREW,M3x10
內六角螺絲,M3x10

Motor Recommended for Stock Gear Ratio:
使用原廠設定齒比時，馬達KV值建議：

Power動力 Gear Ratio齒輪比	Gear Ratio齒輪比 (135T/15T)	Applicable motor 適用馬達
10S	9	600-680KV
12S	9	520-580KV



BK0087
WASHER,d3xD8xW1.4
墊片,d3xD8xW1.4



Paper strip
紙片

For proper mesh, insert a paper strip between the Pinion and Main Gear, and then push the Motor/Main Gear together. Remove the paper strip.
在驅動齒輪及主齒盤插入一紙片可取得兩者間適當的間隙，完成後請記得抽出紙片。



Must be purchased separately
改裝品需另購



Apply threadlocker
使用螺絲防鬆膠

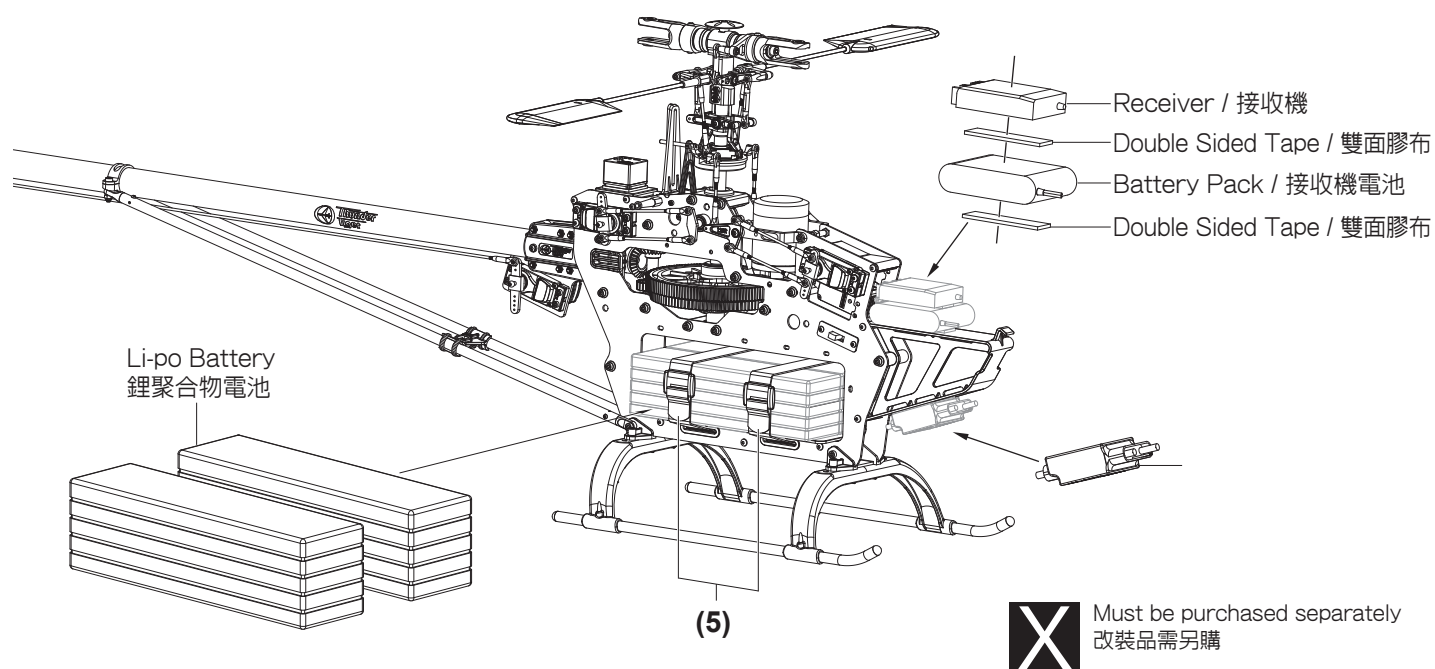


Assemble in right order
依標示順序組裝

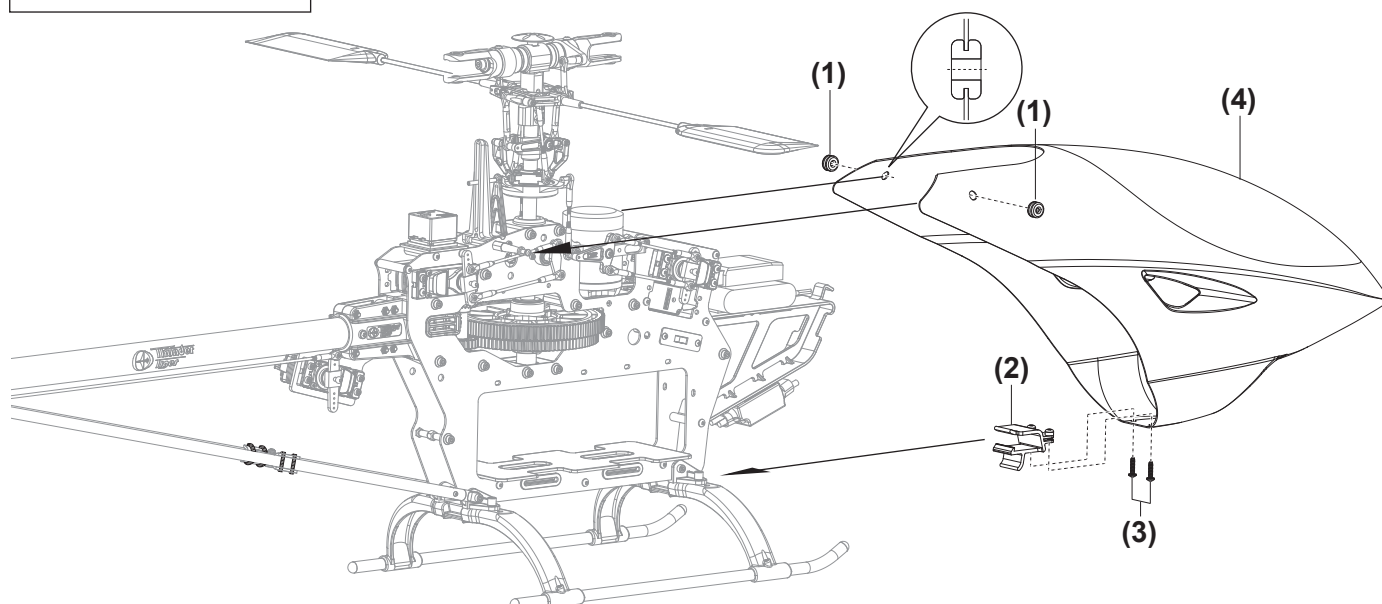


No.	Material No.	Description	名稱	Qty
1	BK0102	RUBBER GROMMET	機身固定墊圈	2
2	BK2278	CANOPY BRACKET	機殼固定座	1
3	HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	2

No.	Material No.	Description	名稱	Qty
4	BK2177A-G	ABS CANOPY-GREEN	ABS機殼-綠色	1
5	BK1125	ZIP TIE	魔鬼束帶	2



HNX3-12B
S.B.H SELF TAPPING SCREW
半圓頭內六角自攻螺絲



Bag KPI Main Rotor Blade / 主旋翼安裝



No.	Material No.	Description	名稱	Qty
1	HMC4-27B	SOCKET SCREW,M4x27	內六角螺絲, M4x27	2
2	HMM4Z	NYLON NUT,M4	止鬆螺帽, M4	2



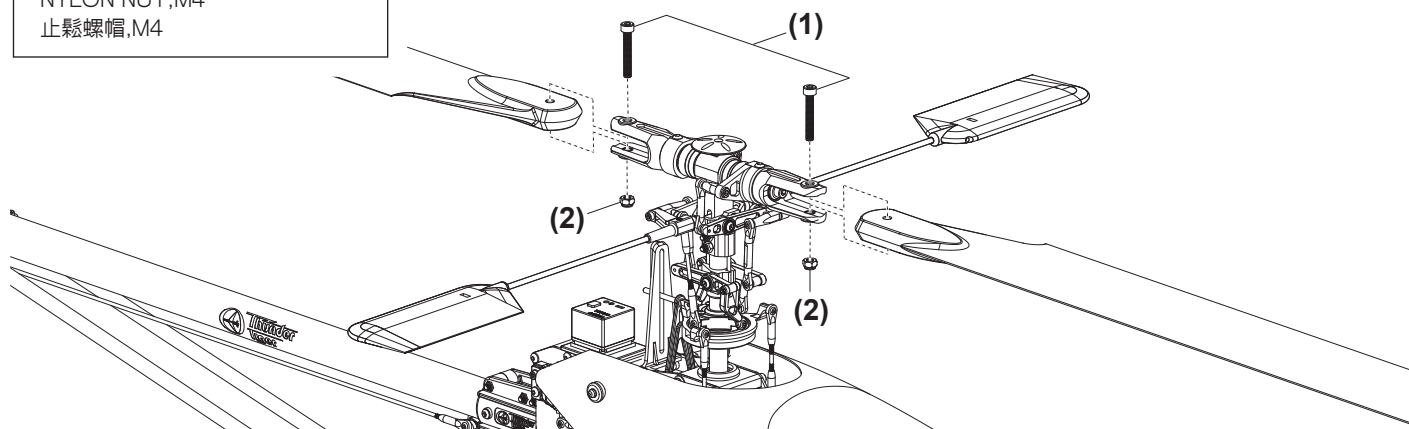
HMC4-27B
SOCKET SCREW,M4x27
內六角螺絲,M4x27



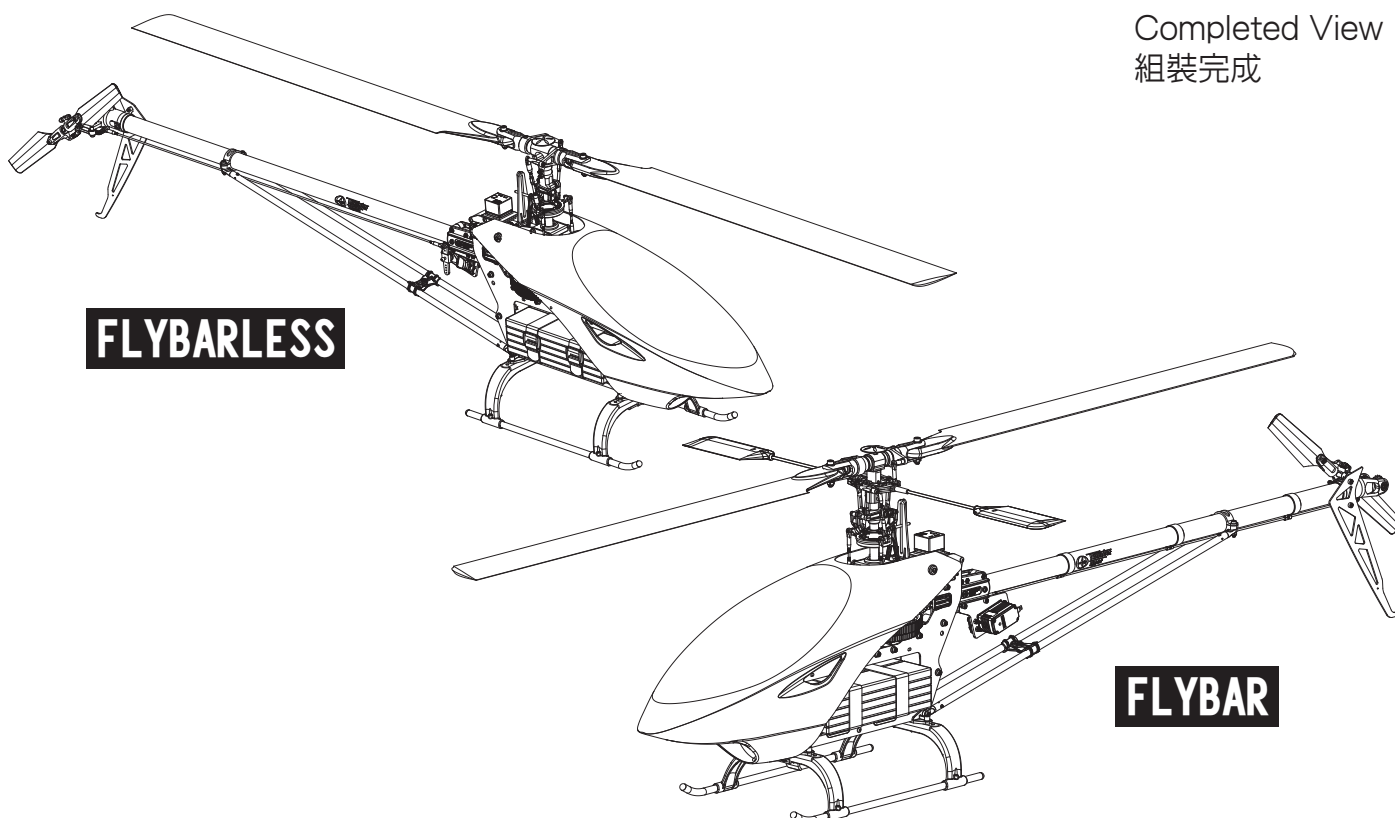
HMM4Z
NYLON NUT,M4
止鬆螺帽,M4



1. You may need to adjust the linkage to ensure the blade tracking. Please refer page 30, "Blade Tracking Adjustment."
 2. Install the main blades with the Socket Screw (HMC4-27B). Do not over tighten and ensure the blades run effortlessly.
 3. For safety the rpm of using carbon blades should not exceed 2400.
1. 您可能必需調整相關的連桿來確保旋翼旋轉軌跡正常。請參閱第30頁“主旋翼軌跡調整”說明。
 2. 以內六角螺絲安裝上主旋翼。請勿過度鎖緊。請勿過度鎖緊。
 3. 安全起見，碳纖維主旋翼轉速請勿超過2400rpm。



Completed View
組裝完成



Radio System Setup / 遙控系統設定



Warning! / 警告!

For safety, please ensure the motor has been deactivated and will not drive the main rotor head before performing following setting processes. You may just unplug 2 of the wires from the motor and the ESC or move the motor with pinion away from the main gear to avoid a rotating rotor head.

安全起見，執行下列設定程序時，請確認馬達不會驅動主旋翼頭。您可拔除馬達與速控器間任兩條連接線，或將馬達驅動齒與主齒盤脫離。

Swashplate Type Setting / 十字盤模式設定



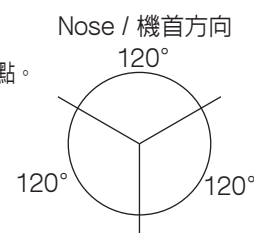
Before starting, make sure the following preparation is done.

1. Set all trims, knobs, and switches to the neutral and zero position.
2. Reset the radio to its factory preset position.
3. Choose the 120° E-CCPM swashplate control mode.

Please refer your Transmitter manual to find a proper setting.

開始設定之前，請先確認下列注意事項

1. 發射機上所有的調整旋鈕、機構均位於中立點。
 2. 重新設定原廠內建數據。
 3. 選擇E-CCPM 120° 模式。
- 請參閱遙控器說明書，進行設定。



Electric Device Connection / 電子設備連接說明



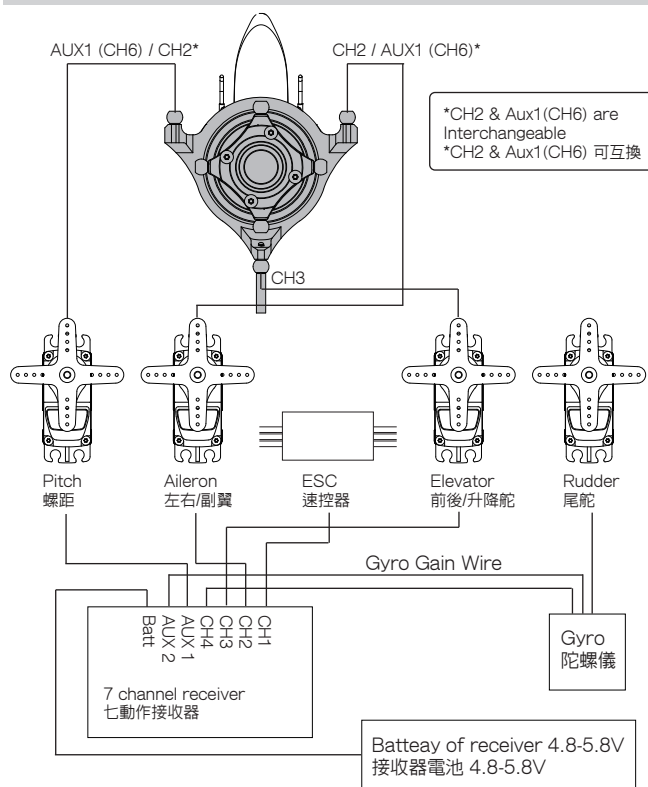
E-CCPM system requires 3 channel for aileron, elevator and an AUX(for pitch). But people may get confused because the 3 channels are not referred to any independent movement. They are operated together to carry out the rolling, flipping and collective controlling. As a result, the following connecting manner is recommended.

The following chart is the E-CCPM connecting for your reference. Please also consult your radio instruction manual.

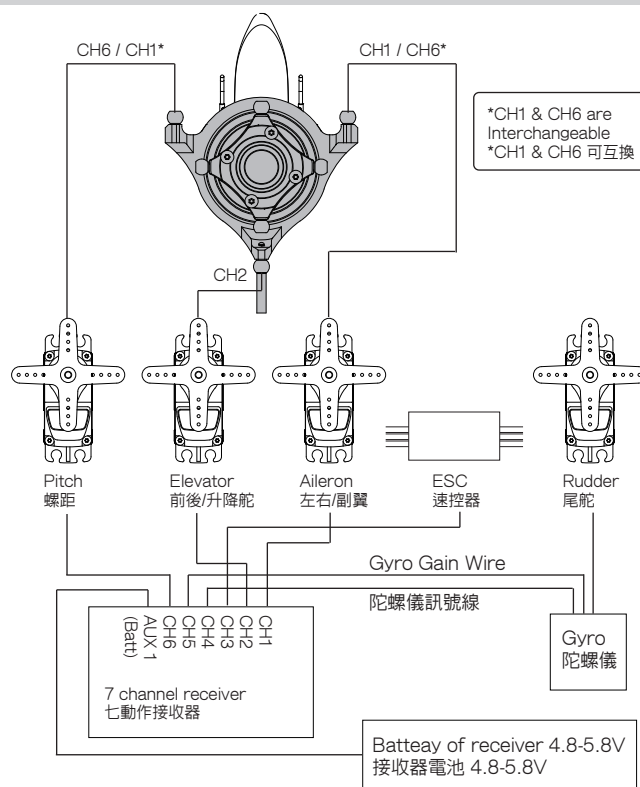
E-CCPM系統需要使用三個通路予副翼、升降舵、與螺距（使用AUX通道）。許多愛好者可能會對於此設定感到困惑，但是在混控模式下，必須藉由三顆伺服機同時完成動作，因此建議依照下列說明完成伺服機與接收機連結。

下列圖示為安裝範例，實際接線方式，請參照您的遙控器使用說明書。

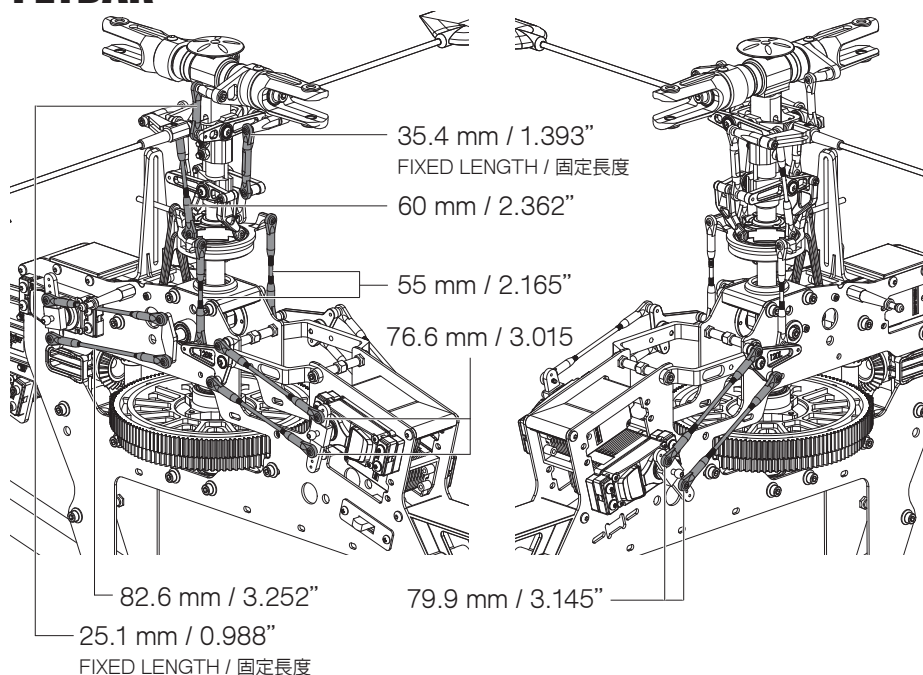
JR Radio Sysym



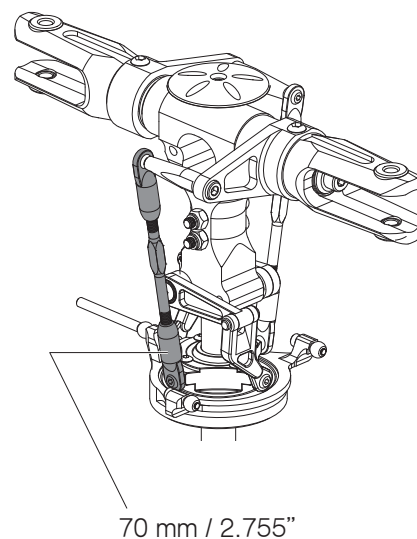
ACE RC / FUTABA / HITEC Radio Sysym



FLYBAR



FLYBARLESS



Swashplate & Servo Movement Setting / 十字盤及伺服機動作設定

As going through these setup procedures, ensure there is none of the controls bind at full travel.

Next, please refer below illustrations to ensure the direction of servo movement and swash mixing settings are correct for the controls properly.

在繼續設定之前，請先確認伺服機及連桿作動皆順暢可達最大作動量。

然後，請參考下表圖示，確認伺服機動作及十字盤混控設定可正確對應撥桿動作。

	Model 1	Model 2	Servo Horn movement 伺服機擺臂動作			Check Point 機構動作確認
Aileron 副翼			Right Side/右側 	Left Side/左側 		 Front View / 前視圖
Elevator 升降舵			Right Side/右側 			 Right View / 右視圖
Pitch 螺距			Right Side/右側 	Right Side/右側 	Right Side/右側 	 Front View / 前視圖
Rudder 尾舵			Right Side/右側 			

If the movements of servos or swashplate are not correct, please adjust the servo reverse settings for one or more channels in your Transmitter.

若伺服機或十字盤作動方向不正確，請調整您遙控器上個別的伺服機逆轉功能。

Tail Control and Gyro Setup 尾舵控制及陀螺儀控制



It is recommended to use a Heading Lock Gyro. With a Heading Lock Gyro, you may not use the trim and the revolution mixing function of tail control.

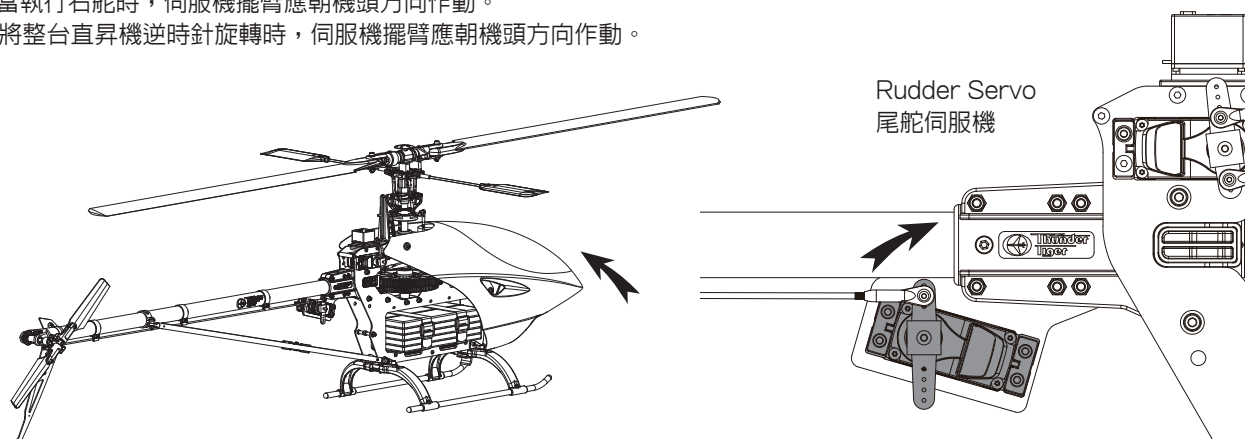
First, choose the length of the tail servo arm referring to the manual of the Gyro. You may try 13.5mm as the starting setting. Then mount the servo arm for the moment and check the movement of the tail servo:

1. While giving the right rudder control, the servo arm should move toward the nose of helicopter.
2. Rotate the helicopter with your hand counterclockwise, the servo arm should move toward the nose of helicopter.

建議搭配鎖頭式陀螺儀，可使您無需額外設定微調及混控功能來控制尾舵。

首先，參考陀螺儀說明書來選用尾舵伺服機擺臂長度，建議初始可先設定為13.5mm。暫將伺服機擺臂固定後進行尾舵伺服機作動確認：

1. 當執行右舵時，伺服機擺臂應朝機頭方向作動。
2. 將整台直昇機逆時針旋轉時，伺服機擺臂應朝機頭方向作動。



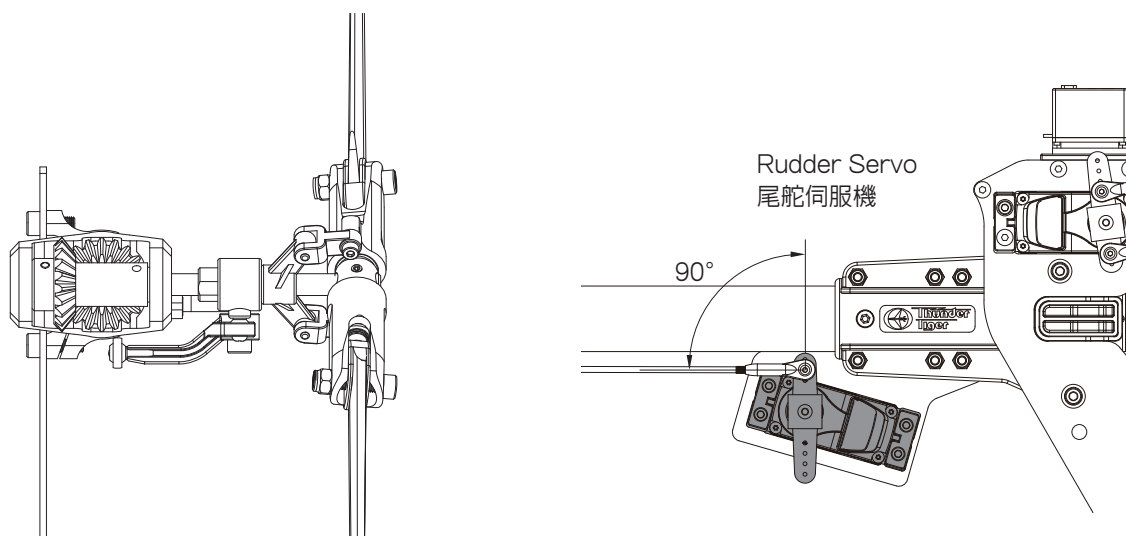
After ensuring the moving direction of tail servo, you have to mount the servo arm in the correct position. Please reset the receiver power and do not move the helicopter. While the tail control stick and trim are centered, mount the servo arm vertically. If you cannot mount the servo arm vertically, please try another servo arm. Next, two points may be your concern:

1. The traveling limit of the rudder servo may not go beyond the mechanical movement.
2. The rudder servo arm should be vertical while the tail rotor are at 0 pitch or with a little offset to the right. (Referring to the photo below)

確認尾舵伺服機動作正確後，即可將伺服機擺臂確實安裝固定；請勿移動直昇機並重新啟動接收機電源。

當尾舵撥桿與微調置中時，將伺服機擺臂垂直尾管安裝固定。若無法正確垂直，請更換合適的擺臂。接著，請特別注意下列兩者：

1. 尾舵伺服機最大行程量切勿大於機械行程量。
2. 當尾旋翼螺距為0或稍偏向右時，尾舵伺服機擺臂應在垂直位置。（請對照下圖）



Note1: To find the traveling limit, you have to adjust the Gyro referring to its manual.

Note2: To adjust the pirouetting speed of the helicopter, please use the "Travel Adjustment" or the "D/R & EXP" function of your transmitter.

說明1：請參考陀螺儀說明書調整陀螺儀以確認伺服機最大行程量。

說明2：調整尾舵自旋速度，請設定發射機上“行程設定（Travel Adjustment）”或“大小動（D/R）、指數值（EXP）”功能。

Setting Up Data for Your Reference 參數設定參考

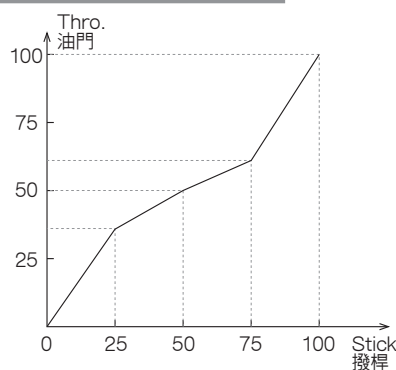


The following is the setting up data of pitch curve and throttle curve for your reference only. Please ask experienced pilot to help you if you have never done this before.

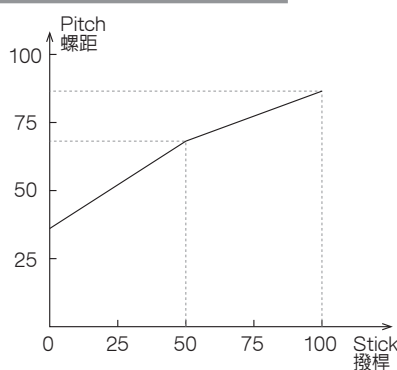
下列參數設定僅供參考，請依實際狀況進行調整，或詢求有經驗的玩家協助。

■ Beginner / 一般飛行

Throttle Curve 油門曲線



Pitch Curve 螺距曲線



Throttle Curve 油門曲線

	0	25	50	75	100
Normal 一般飛行	0	35	50	65	100

Pitch Curve 螺距曲線

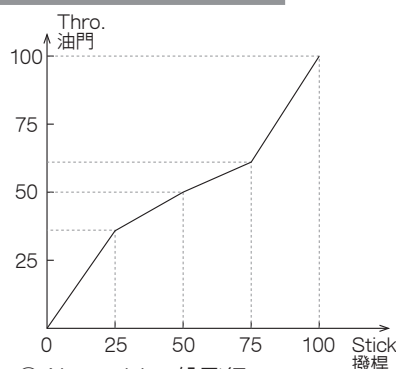
	0	25	50	75	100
Normal 一般飛行	35	-	70	-	85

Pitch Curve 螺距曲線

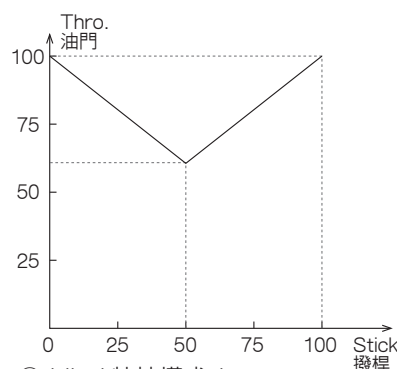
	0	25	50	75	100
Normal 一般飛行	-4°	-	+6°	-	+10°

■ 3D

Throttle Curve 油門曲線



◎ Normal / 一般飛行



◎ Idle / 特技模式 1

Throttle Curve 油門曲線

	0	25	50	75	100
Normal 一般飛行	0	35	50	65	100
Idle-up 1 特技模式 1	100	-	60	-	100

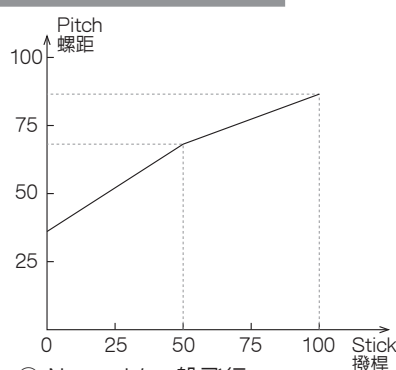
Pitch Curve 螺距曲線

	0	25	50	75	100
Normal 一般飛行	35	-	70	-	85
Idle-up 1 特技模式 1	0	-	-	-	100
Hold 鎖定模式	0	-	-	-	100

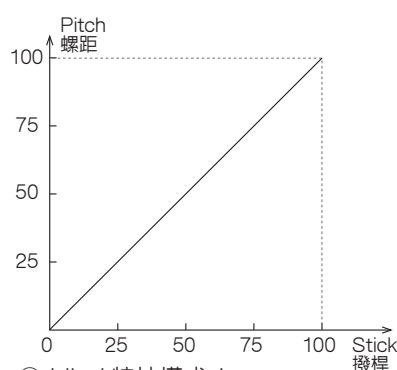
Pitch Curve 螺距曲線

	0	25	50	75	100
Normal 一般飛行	-4°	-	+6°	-	+10°
Idle-up 1 特技模式 1	-15°	-	-	-	+15°
Hold 鎖定模式	-15°	-	-	-	+15°

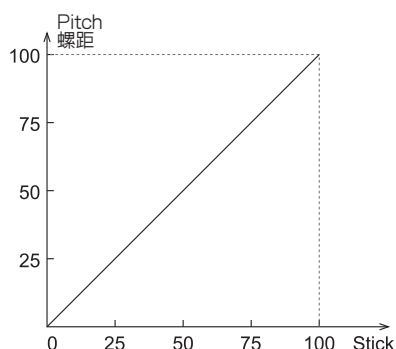
Pitch Curve 螺距曲線



◎ Normal / 一般飛行



◎ Idle / 特技模式 1



◎ Hold / 鎖定模式

⚠ WARNING 警告

1. Too much collective pitch will bring about too much loading to the motor and drive system.
 2. Too much headspeed will lead to blades (grips) explosion.
 3. It's very dangerous for setting the headspeed over the blades (grips) limit.
 4. Please do not set the collective pitch to the maximum (± 15) unless you have very good collective pitch management skill.
1. 過大的聚合螺距設定會使動力及傳動系統超載。
2. 過快的主旋翼轉速會造成主旋翼轉座崩裂或射漿。
3. 將旋翼轉速設定超過槳片負載極限極端危險！
4. 請勿將聚合螺距設定超過最大值（+15度角）。

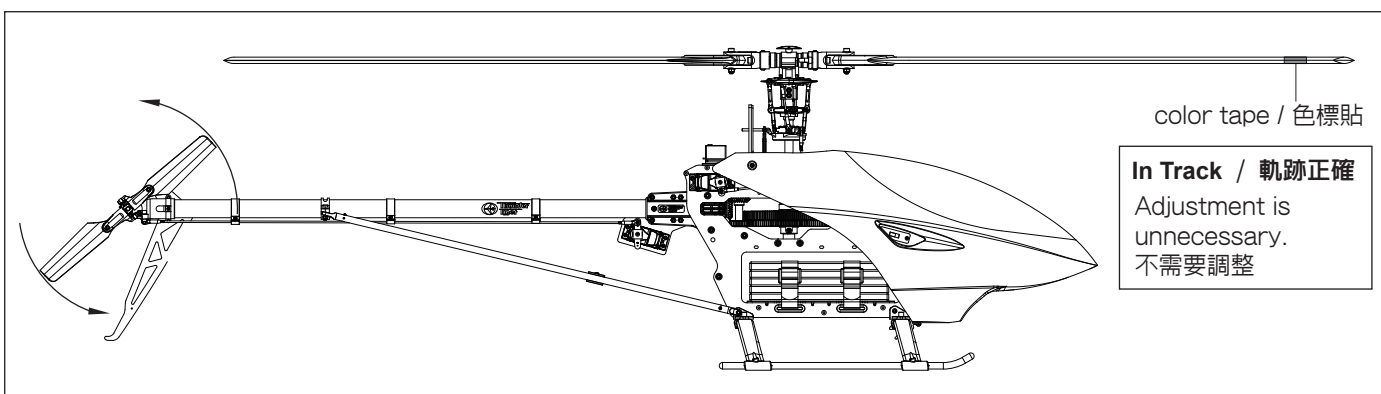
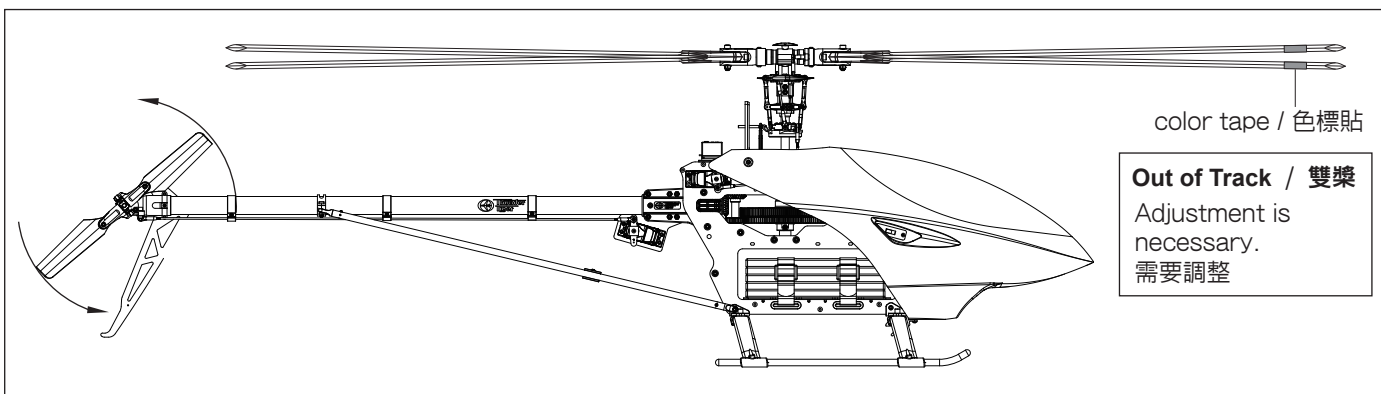
Blade Tracking Adjustment / 主旋翼軌跡調整



⚠ CAUTION / 警告

For safety, ensure to keep a safe distance from the helicopter at least 10 meter (30 feet) while making tracking adjustment.

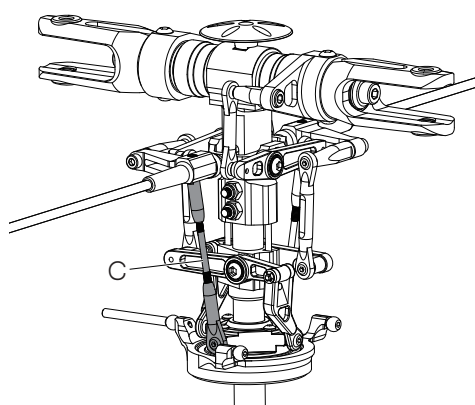
安全起見，進行主旋翼軌跡調整時，請至少與直昇機保持10米（30呎）的安全距離。



1. Use a color tape at the tip of main blades for tracking identification easily.
2. Increase the main blade speed to just before the helicopter lifts-off.
3. Observe which blade appears to be lower than the other, and increase the pitch of the lower blade one turn of the Linkage Rod C/D (refer Page 11) at a time until each blade runs in track. If both main blades rotate in the same path, it doesn't need to be adjusted.

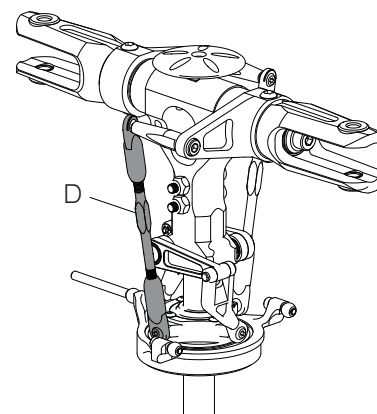
1. 在主旋翼前端貼上色標可方便辨識軌跡。
2. 提高主旋翼轉速使機體稍懸浮於地面。
3. 觀察兩支旋翼軌跡是否有落差（雙槳），調整軌跡較低旋翼上的連桿C/D（參閱第11頁）長度，一次調整一圈，直至兩支旋翼軌跡一致。若軌跡一致則無需調整。

FLYBAR



Linkage Rod C
(refer Page 11)
連桿C（參閱第11頁）

FLYBARLESS



Linkage Rod D
(refer Page 11)
連桿D（參閱第11頁）

⚠ CAUTION / 警告

Out of track causes vibration, instability and a loss of power due to additional drag. Please adjust the tracking repeatedly until the blades are in track properly.

旋翼軌跡落差（雙槳）會造成直昇機震動、不平衡及損失動力。請務必進行調整以使旋翼軌跡精準正確。

Cautions of Li-Po Battery Pack Using / 鋰聚電池使用注意事項



Lithium Polymer (Li-Po) battery is volatile. Failure to read and follow the safety instructions or the instruction manual offered by manufacturers may result in fire, personal injury and damage to property if charged or used improperly.

Please READ your Li-Po battery manual thoroughly before using. Some precaution and information for your reference below:

1. ONLY use a charger specifically designed for Li-Po battery packs to charge/discharge your Li-Po battery packs. Failure to use an improper charger may cause a fire, which may result in personal injury and property damage.
2. A parallel charging process is strongly recommended, otherwise, the balancer is necessary if using a serial charging process.
3. Gernally DO NOT over charge the battery over the maximum voltage of 4.2V/per cell and over discharge drop below 3.0V/per cell.
4. Always keep the voltage of every cell at 3.8V if the pack will be stored for a long term.
5. Always avoid any puncture of the battery pack at all times.

Neither Thunder Tiger nor our distributors/retailers assume liability for failures to comply with these cautions, safety recommended and instruction manual. Users assume all risks associated with Li-Po battery packs.

鋰聚電池具有相當之危險性。疏於詳閱以下注意事項及電池廠商所提供的說明書，或未依據正確操作方式使用，可能會引發火災、人身傷害及財產損失。

請務必在使用前詳閱並遵守使用說明。以下注意事項及訊息提供您參考：

1. 請務必使用鋰聚電池專用充電器充/放電鋰聚電池組。使用不正確的充電器可能會引發火災、人身傷害及財產損失。
2. 強烈建議使用平行充電式的充電器充電。若使用串充方式請務必加裝平衡器。
3. 請勿過度充電使電壓超過4.2伏特/單一電池蕊，或過度放電使電壓低於3.0伏特/單一電池蕊。
4. 如需長期儲存電池，請保持單一電池蕊電壓在3.8伏特。
5. 任何情況下，皆勿擠壓電池。

雷虎科技或授權經銷商/模型店對未依照正確方式使用或安並規定之意外具免責條款，使用人應自負使用鋰聚電池所可能衍生的風險。

After Flight Checklist / 飛行後的檢查項目



- (1) Check every screw and bolt to make sure none has loosened due to vibration.
 - (2) Check every rotating and movable part to ensure they still move smoothly and normally.
 - (3) Clean off the exhaust residue from the muffler, motor, and helicopter.
 - (4) Check all movable parts, such as gears, ball links, etc. for unusual wear.
- (1) 每次飛行後必須詳細的檢查機體的各部位螺絲有無鬆動情形，若發生鬆動必須確實鎖緊再進行下飛行。
- (2) 每次飛行後檢查每一個轉動部位（含單頭連接桿）均能順暢的運作。
- (3) 排氣管、馬達、直昇機本體必須確實的清潔。
- (4) 檢查每一個動作部位，齒輪、球頭等是否有不正常磨損。

Regular Maintenance / 定期保養事項



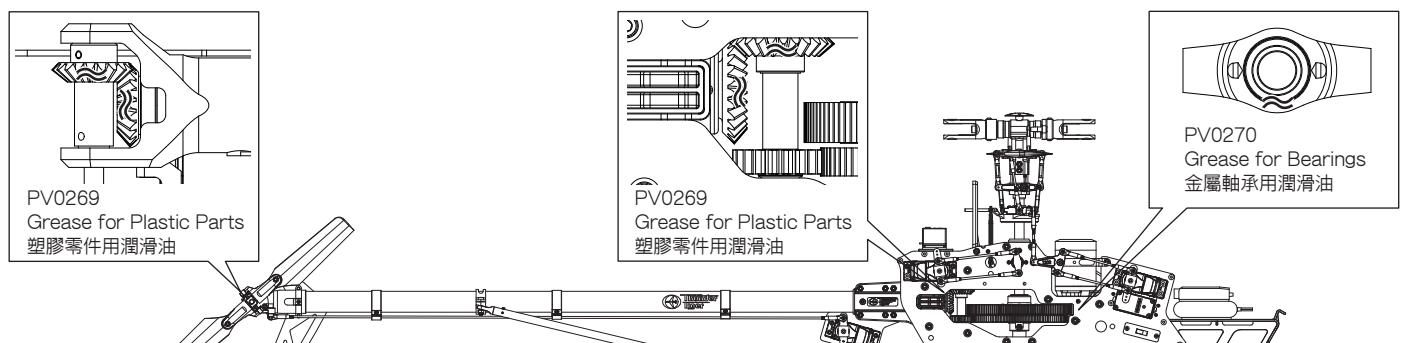
! Warning! / 警告!

Lack for regular maintenance or apply a wrong type of grease/oil onto the parts may cause damage and model crash, which may cause series injury or death if the model hits people or property.

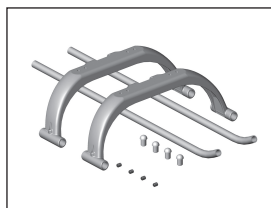
疏於定期保養，或塗抹不正確類型的潤滑油皆可能損壞零件造成摔機，因而導致人員受傷或財產損失。

For safety, to check and maintain the parts every 5~10 flights is strongly recommended. Please re-apply the proper grease or oil onto the bevel bears and bearings as the illustrations.

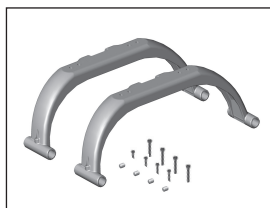
強烈建議您每飛行5~10趟需執行下列定期保養事項。請依圖示說明重新在傘齒及軸承上塗抹潤滑油。



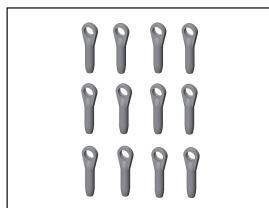
SPARE PARTS / 零件包



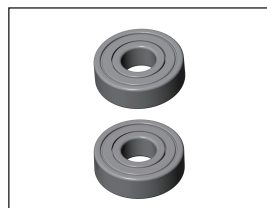
PV0035-2
LANDING SKID SET
腳架組



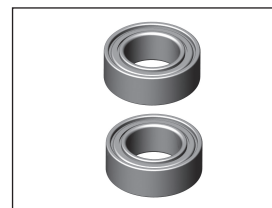
PV0035-3
LANDING SKID
腳架



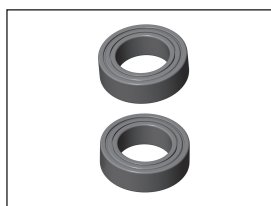
PV0041
BALL LINK
單頭連接桿



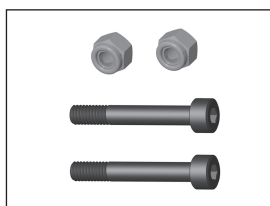
PV0050
BEARING SET, d5xD13xW4
軸承組, d5xD13xW4



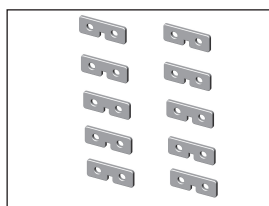
PV0051
LEAVER BRG, d4xD7xW2.5
軸承組, d4xD7xW2.5



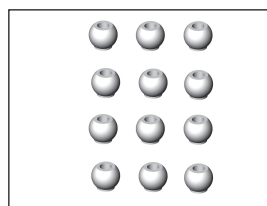
PV0052
TAIL SLIDER BRG, d6xD10xW3
軸承組, d6xD10xW3



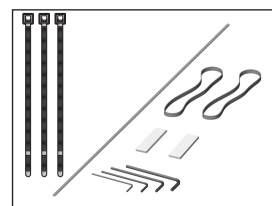
PV0053
ROTOR BOLT
主旋翼螺絲組



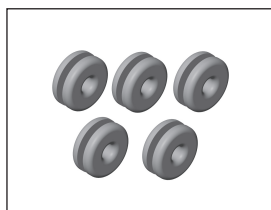
PV0054
SERVO MOUNTING PLATE
伺服機固定片組



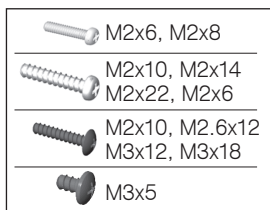
PV0058
LINKAGE BALL
連接頭



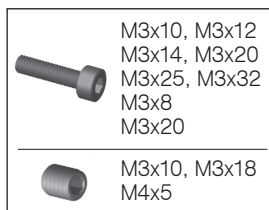
PV0060
INSTALLATION SET
組合附件包



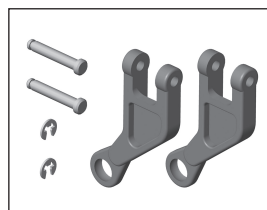
PV0062
RUBBER GROMMETS(WHITE)
機身固定墊圈組



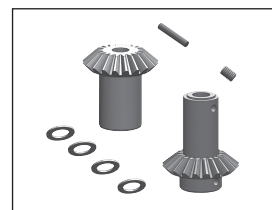
PV0088
SCREW BAG(6 PCS EACH)
圓頭十字螺絲組



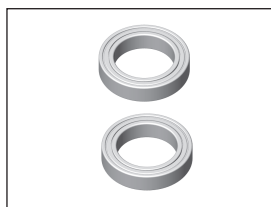
PV0089
SCREW BAG(6 PCS EACH)
內六角螺絲組



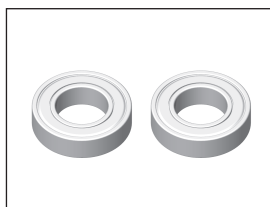
PV0115-1
WASHOUT LINKAGE
連接座



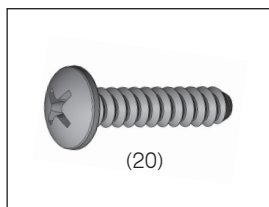
PV0149-1
TAIL GEAR,X50
尾齒輪,X50



PV0197
BALL BEARING, d12xD18xW4
滾珠軸承組, d12xD18xW4



PV0244
BALL BEARING, d10xD19xW5
滾珠軸承組, d10xD19xW5



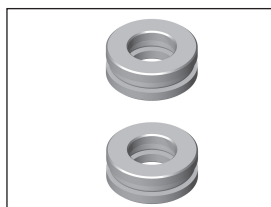
PV0261
SELF TAPPING SCREW (M2.6x14)
扁圓型自攻螺絲組 (M2.6x14)



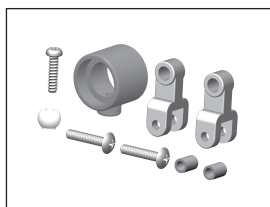
PV0268
LOCTITE #262
高強度防鬆劑 (紅)



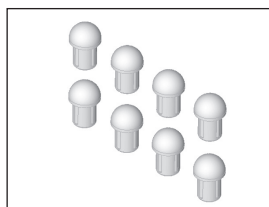
PV0270
THRUST BEARING GREASE
止推軸承潤滑脂



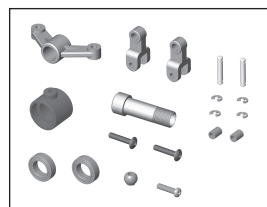
PV0365
THRUST BRG. d6xD12xW4.5
止推軸承組 d6xD12xW4.5



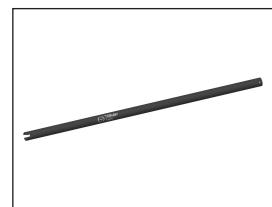
PV0407
TAIL PITCH SLIDER
尾旋翼滑座



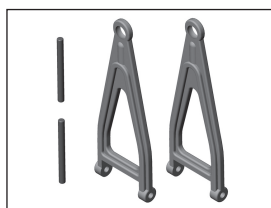
PV0454
SKID PIPE END CAP
圓管塞



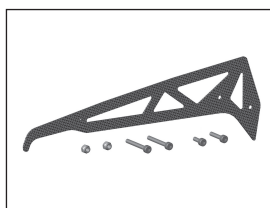
PV0504
TAIL PITCH SLIDER SET
尾旋翼滑座組



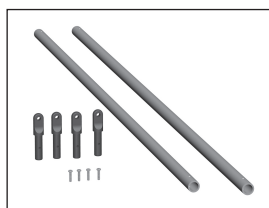
PV0523-1
CARBON TAIL BOOM
碳纖維尾管



PV0665
ELEVATOR A ARM
升降舵A臂



PV0678-1
CARBON VERTICAL FIN
碳纖維垂直安定面



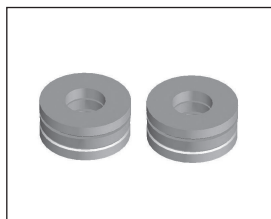
PV0679-T
TAIL SUPPORT
尾管支撐架組



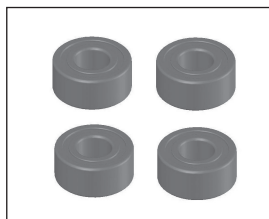
PV0681
MAIN HUB BOLT
主旋翼頭固定螺絲



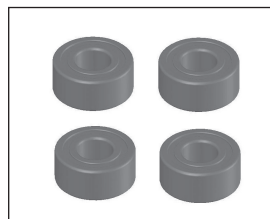
PV0682
MAIN SHAFT BOLT
主軸齒輪固定螺絲



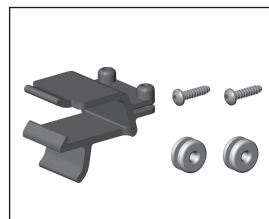
PV0769
THRUST BEARING, d4xD9xW4
止推軸承組, d4xD9xW4



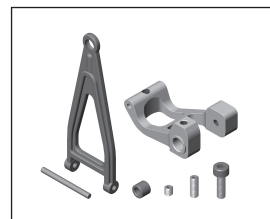
PV0771
BEARING, d4xD9xW4
滾珠軸承組, d4xD9xW4



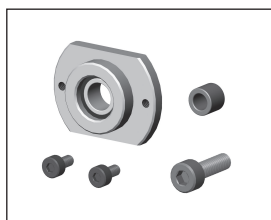
PV0919
BEARING, d3xD6xW2.5
軸承, d3xD6xW2.5



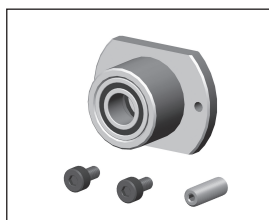
PV1310-1
CANOPY BRACKET
機殼固定座



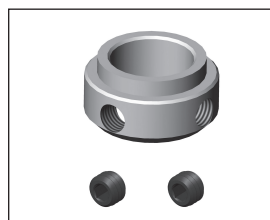
PV1314
ELEVATOR ARM SET
升降舵控制組



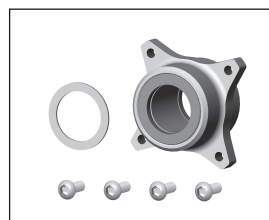
PV1314-1
METAL ELEVATOR WASHER MOUNT SET(L)
金屬升降舵墊片座組(左)



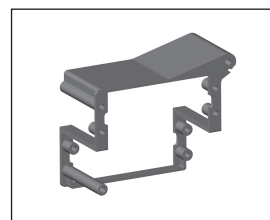
PV1314-2
METAL ELEVATOR WASHER MOUNT SET(R)
金屬升降舵墊片座組(右)



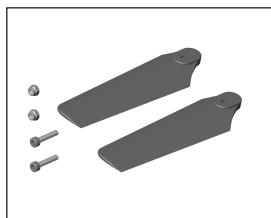
PV1315
MAIN SHAFT LOCK RING
主軸止檔圈



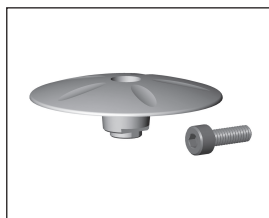
PV1316
ONE WAY CLUTCH HOUSING
單向離合器組



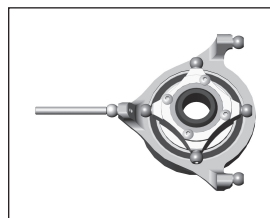
PV1317
CYCLIC SERVO TRAY
循環螺距伺服機座



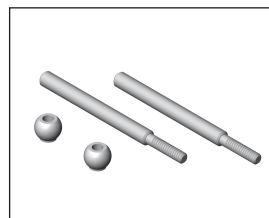
PV1318
TAIL BLADE SET (BLACK)
尾旋翼組(黑)



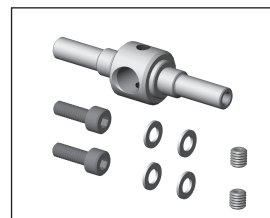
PV1323
METAL HEAD BUTTON
金屬旋翼頭制動器



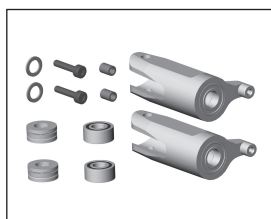
PV1326
METAL SWASHPLATE SET
金屬十字盤組



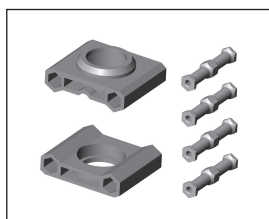
PV1327
SWASHPLATE CONTROL ROD
十字盤穩定桿



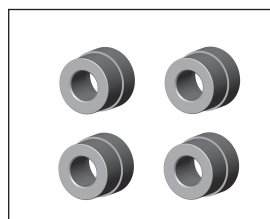
PV1330
METAL TAIL ROTOR HUB
金屬尾旋翼固定座



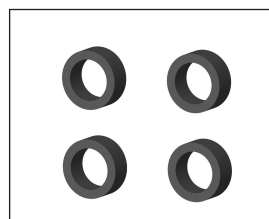
PV1331-1
METAL TAIL GRIP, X50
金屬尾旋翼座(軸傳), X50



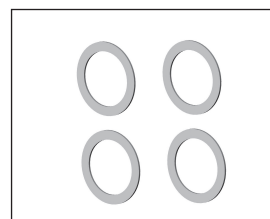
PV1335
MAIN SHAFT BEARING BLOCK
主軸上下軸承座



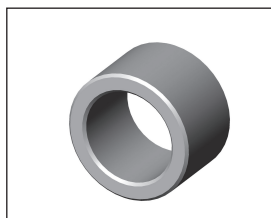
PV1339
OUTER DAMPER (7mm)
外避震墊圈(7mm)



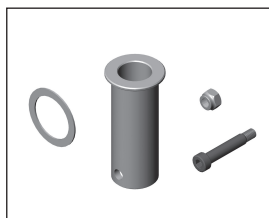
PV1339-1
INNER DAMPER (7mm)
內避震墊圈(7mm)



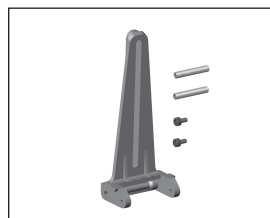
PV1340
MAIN GEAR WASHER
主齒輪墊片



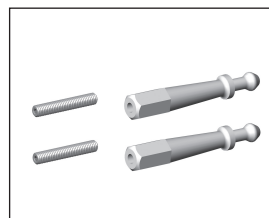
PV1341-1
MAIN GEAR COLLAR-X50
主齒輪組軸環-X50



PV1342
ONE WAY CLUTCH SHAFT
單向離合器軸組



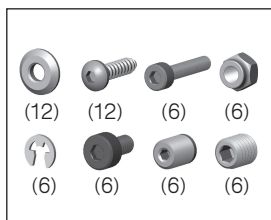
PV1345
PHASING CONTROL TRACK
相位控制導軌



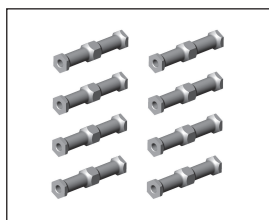
PV1346
CANOPY RETAINING POST
機殼固定鋁柱



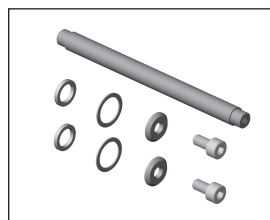
PV1356
BLADE SUPPORT
主旋翼固定架



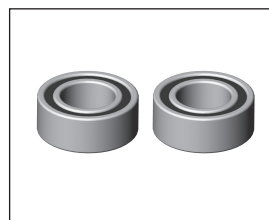
PV1357
SCREW BAG
螺絲零件包



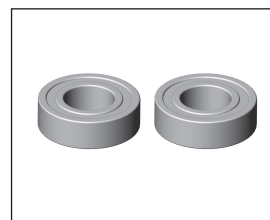
PV1358
FRAME SPACER
六角連接支柱



PV1361
SPINDLE (7mm) SET, X50
固定軸(7mm)組, X50



PV1362
SPINDLE (7mm) BRG. SET d7xD13xW5
固定軸(7mm)軸承組, d7xD13xW5

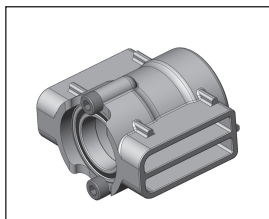


PV1363
TAIL GRIP BAG, d7xD10xW3
尾旋翼座軸承組, d7xD10xW3

SPARE PARTS / 零件包



THUNDER TIGER



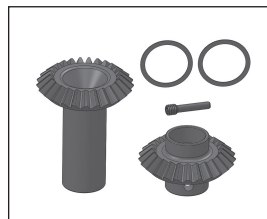
PV1366
TAIL GEAR MOUNT SET
傘齒輪固定座



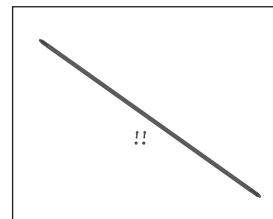
PV1367
TAIL PITCH CONTROL LEVER SET
尾旋翼控制桿組



PV1368
BEARING BLOCK SET
軸傳軸承座組



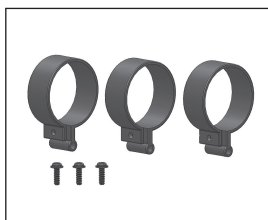
PV1371
TAIL GEAR SET
傘齒輪-25T



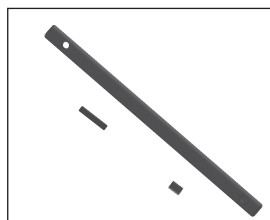
PV1375
TAIL DRIVE SHAFT SET
尾驅動軸組



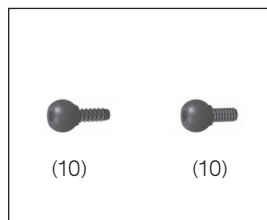
PV1376
TAIL DRIVE SHAFT BRG SET
傳動軸軸承套組



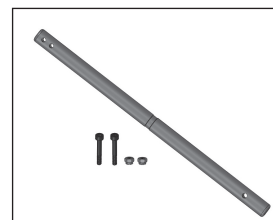
PV1377
ROD GUIDE
固定環



PV1378
TAIL ROTOR SHAFT
尾旋翼橫軸組(軸傳)



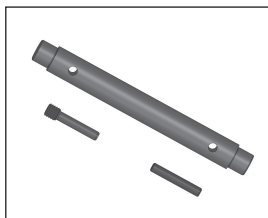
PV1379
LINKAGE BALL SCREW SET
球頭螺絲組



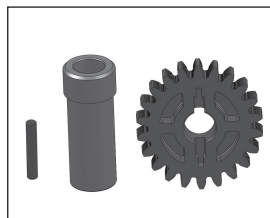
PV1388
Hardened Main Shaft
主軸



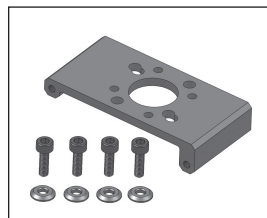
PV1389
Tail Boom Bracket
尾管固定座



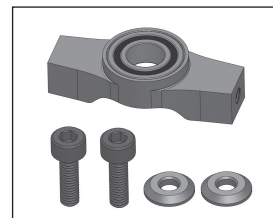
PV1390
Tail Drive Gear Shaft
軸傳驅動軸



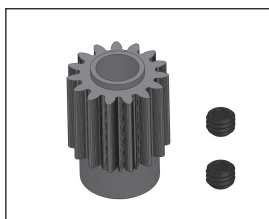
PV1391
Front Tail Drive Gear Set 22T
軸傳尾驅動齒輪-22T



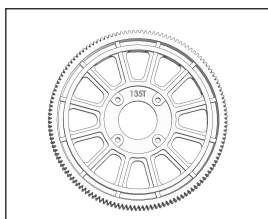
PV1392
METAL MOTOR MOUNT
金屬馬達固定座



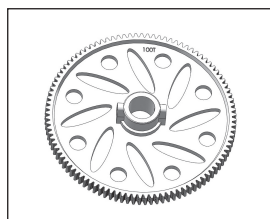
PV1393
METAL MOTOR PINION BLOCK
金屬馬達齒輪固定座



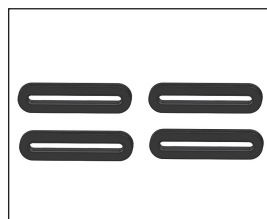
PV1394
MOTOR PINION 15T
馬達齒-15T



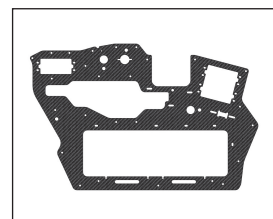
PV1395
MAIN GEAR 135T
主齒輪-135T



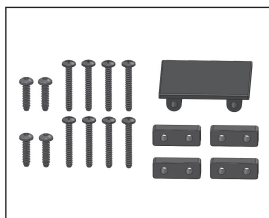
PV1396
AUTOROTATION TAIL DRIVE PULLEY 100T
軸傳尾驅動主齒-100T



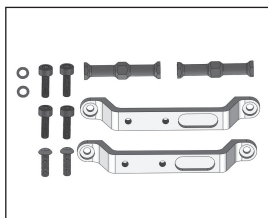
PV1397
STRAP RUBBER
束帶橡膠墊圈



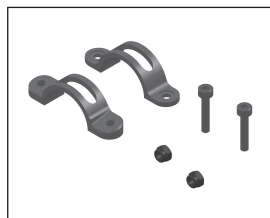
PV1398
CARBON FRAME (1)
碳纖側板-單片



PV1399
GYRO TRAY & SERVO MOUNTING
陀螺儀座及墊塊組



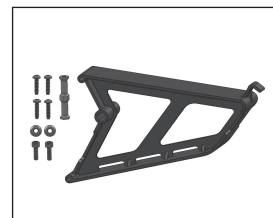
PV1400
METAL CONTROL ARM BRACE
金屬控制臂支架



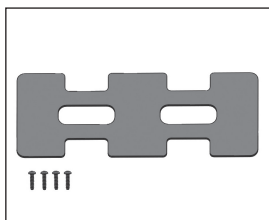
PV1415
METAL TAIL SUPPORT BRACKET
金屬尾支撐桿固定座



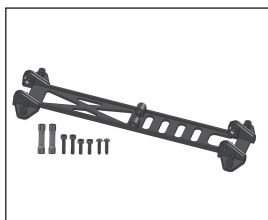
PV1418
METAL MAIN ROTOR GRIP
金屬旋翼轉座(本體)



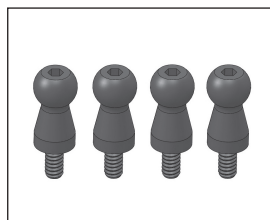
PV1419
REVEIVER TRAY
接收機座



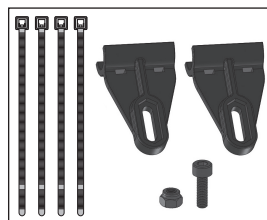
PV1420
BATTERY TRAY
電池座



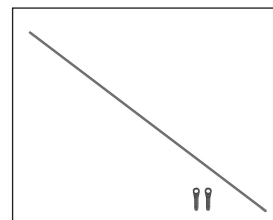
PV1421
BOTTOM FRAME
底盤



PV1422
LONG LINKAGE BALL SCREW SET
加長型球頭螺絲組

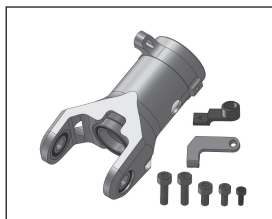


PV1423
TAIL SUPPORT BRACE
尾管支撐架連接座

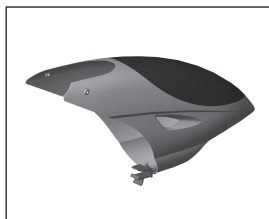


PV1424
DOUBLE LINKAGE SET
雙頭推拉桿

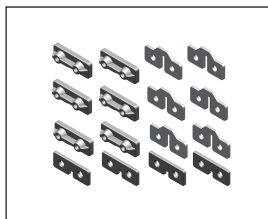
SPARE PARTS / 零件包



PV1425
METAL TAIL CASE
金屬尾座

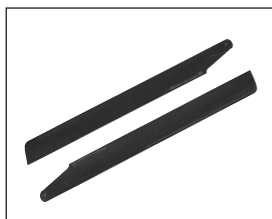


PV1431-G
ABS CANOPY-GREEN
ABS 機殼 (綠色)

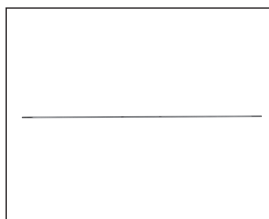


PV1604
SERVO MOUNTING SET
伺服機墊片組

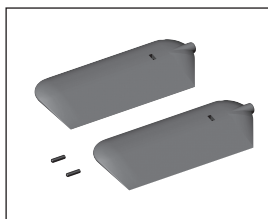
EXCLUSIVE SPARE PARTS - FLYBAR EDITION / 平衡翼版本專用零件包



3878
TT V2 CARBON BLADE 600mm
碳纖維主旋翼600mm



PV0450
SUS FLYBAR ROD
SUS平衡桿零件包



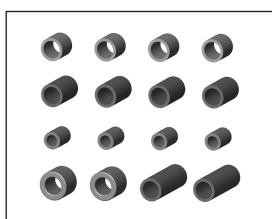
PV0482-B
ULTRA LIGHT PADDLE (BLACK), 20g
超輕量穩定翼(黑色), 20g



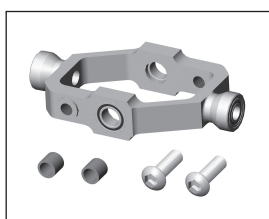
PV1312
FLYBAR JOINT BALL LINK
穩定翼連接桿組



PV1319
DOUBLE LINK
雙頭連接桿



PV1320
COLLAR SET
軸環組



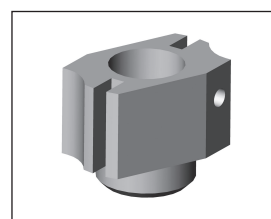
PV1321
METAL SEESAW HUB
金屬穩定桿固定座



PV1322
METAL MIXING LEVER
金屬混控臂



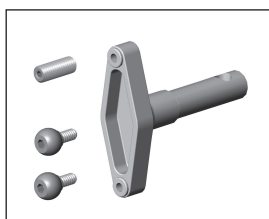
PV1324
METAL MAIN ROTOR HUB
金屬主旋翼固定座



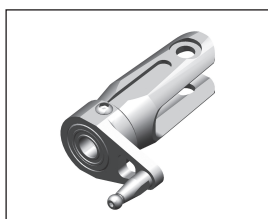
PV1325
METAL WASHOUT BASE
金屬控制臂座



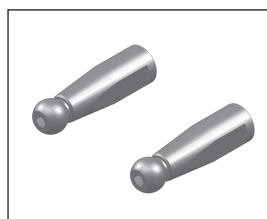
PV1336
LINKAGE ROD SET
連接桿組



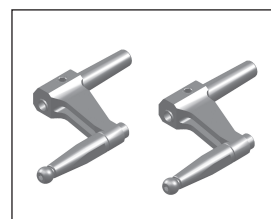
PV1348
METAL ELEVATOR LEVER ROD
金屬升降舵推拉桿



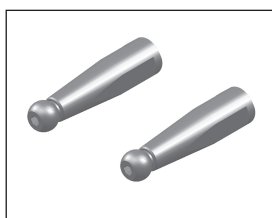
PV1401
METAL MAIN ROTOR GRIP SET
金屬旋翼轉座組



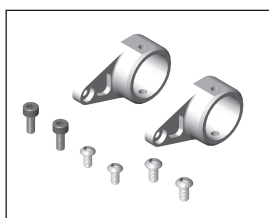
PV1402
METAL MAIN ROTOR GRIP POST
金屬旋翼轉座支柱



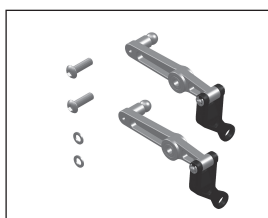
PV1403
METAL FLYBAR CONTROL ARM
金屬穩定翼轉臂組



PV1404
METAL FLYBAR CONTROL ARM POST
金屬穩定翼轉臂支柱



PV1417
METAL ROTOR GRIP LEVER
金屬轉座擺臂

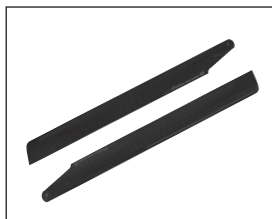


PV1405
METAL FLYBAR CONTROL LEVER
金屬穩定翼控制臂組

EXCLUSIVE SPARE PARTS – FLYBARLESS EDITION / 無平衡翼版本專用零件包



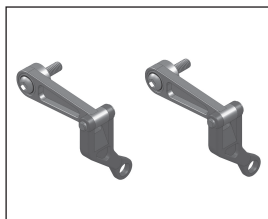
THUNDER TIGER



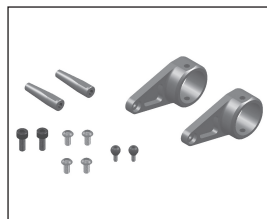
3915
FBL CARBON BLADE 600mm
無平衡翼碳纖維彩槳600mm



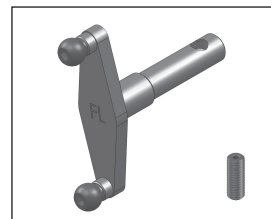
PV1382
METAL FB MAIN ROTOR HUB
金屬無平衡翼主旋翼固定座



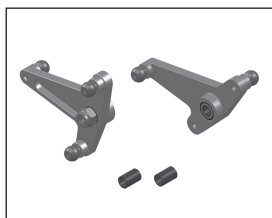
PV1383
METAL FB CONTROL LEVER SET
金屬無平衡翼控制搖臂組



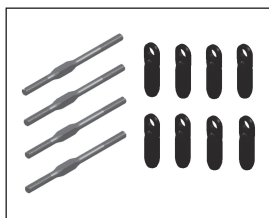
PV1384
METAL FB ROTOR GRIP LEVER SET
金屬無平衡翼轉座擺臂組



PV1385
METAL FB ELEVATOR LEVER ROD
金屬無平衡翼升降舵推拉桿



PV1386
METAL 120° FB CONTROL ARM SET
金屬 120° 無平衡翼控制搖臂組



PV1387
TITANIUM LINKAGE ROD SET, 76mm
鈦合金連接桿組, 76mm

SPARE PARTS LIST / 維修零件包表格



No.	Description	中文名稱	Part No.	Description	中文名稱	Qty	Index Page
3878	TT V2 CARBON BLADE 600mm	碳纖主旋翼600mm	BV6033	TT V2 CARBON BLADE 600mm	碳纖主旋翼600mm	1	25
3915	FBL CARBON BLADE 600mm	無平衡翼碳纖彩槳600mm	BV6054	FBL CARBON BLADE 600mm	無平衡翼碳纖彩槳600mm	1	25
PV0035-2	LANDING SKID SET	腳架組	BK2261	LANDING SKID	腳架	2	15
			BK0064T	SKID PIPE	底座圓管	2	15
			BK0065	SKID PIPE END CAP	圓管塞	4	15
			HME4-5B	SET SCREW, M4x5	無頭內六角螺絲, M4x5	4	15
			HMC3-14B	SOCKET SCREW, M3x14	內六角螺絲, M3x14	4	15
PV0035-3	LANDING SKID	腳架	BK2261	LANDING SKID	腳架	2	15
			HME4-5B	SET SCREW, M4x5	無頭內六角螺絲, M4x5	4	15
			HMC3-14B	SOCKET SCREW, M3x14	內六角螺絲, M3x14	4	15
PV0041	BALL LINK	單頭連接桿	BK0086	BALL LINK	單頭連接桿	12	11,22
PV0050	BEARING SET	軸承組	HMV1350ZZY	BALL BEARING, d5xD13xW4	滾珠軸承, d5xD13xW4	2	19
PV0051	LEAVER BRG	軸承組	HMV740ZZY	BEARING, d4xD7xW2.5	滾珠軸承, d4xD7xW2.5	4	9,19
PV0052	TAIL SLIDER BRG	軸承組	HMV1060ZZY	BEARING, d6xD10xW3	滾珠軸承, d6xD10xW3	2	18
PV0053	ROTOR BOLT	主旋翼螺絲組	HMC4-27B	CAP SCREW, M4x27	內六角螺絲, M4x27	2	25
			HMM4Z	LOCK NUT, M4	止鬆螺帽, M4	2	25
PV0054	SERVO MOUNTING PLATE	伺服機固定片組	BK0104	SERVO MOUNTING PLATE	伺服機固定片	10	21
PV0058	LINKAGE BALL	連接頭	BK0075	LINKAGE BALL	連接頭	12	18
PV0060	INSTALLATION SET	組合附件包	BE1052	ANTENNA TUBE	油門拉桿導管	1	-
			BK0106	DOUBLE SIDE TAPE	雙面膠布	2	-
			BK0109	RUBBER BAND, 5x3 20xT1	耐熱橡皮圈, 5x3 20xT1	2	-
			HNI15	HEX WRENCH 1.5m/m	六角扳手	1	-
			HNI2	HEX WRENCH 2m/m	六角扳手	1	-
			HNI25	HEX WRENCH 2.5m/m	六角扳手	1	-
			HNI3	HEX WRENCH 3m/m	六角扳手	1	-
			HNIJ-1	TIE BAND 2.5x100	固定束帶	3	-
PV0062	RUBBER GROMMETS(WHITE)	機身固定墊圈組	BK0102	BODY MOUNT RUBBER	機身固定墊圈	5	24
PV0088	SCREW BAG(6 PCS EACH)	圓頭十字螺絲組	HMF2-6N	SCREW, M2x6	圓頭十字螺絲, M2x6	6	-
			HMF2-8N	SCREW, M2x8	圓頭十字螺絲, M2x8	6	-
			HMJ2-10N	SELFTAPPING SCREW, M2x10	自攻螺絲, M2x10	6	-
			HMJ2-14N	SELFTAPPING SCREW, M2x14	自攻螺絲, M2x14	6	-
			HMJ2-6B	SELFTAPPING SCREW, M2x6	圓頭十字自攻螺絲, M2x6	6	-
			HMJ3-22B	SELFTAPPING SCREW, M3x22	自攻螺絲, M3x22	6	-
			HSE2-10B	SELFTAPPING SCREW, M2x10	扁圓型自攻螺絲, M2x10	6	-
			HSE2612N	SELFTAPPING SCREW, M2.6x12	扁圓型自攻螺絲, M2.6x12	6	-
			HSE3-12B	SELFTAPPING SCREW, M3x12	扁圓型自攻螺絲, M3x12	6	-
			HSE3-18B	SELFTAPPING SCREW, M3x18	扁圓型自攻螺絲, M3x18	6	-
PV0089	SCREW BAG(6 PCS EACH)	內六角螺絲組	BK0616	SOCKET SCREW, M3x20	內六角螺絲 (半牙), M3x20	2	-
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	6	-
			HMC3-12B	SOCKET SCREW, M3x12	內六角螺絲, M3x12	6	-
			HMC3-14B	SOCKET SCREW, M3x14	內六角螺絲, M3x14	6	-
			HMC3-20B	SOCKET SCREW, M3x20	內六角螺絲, M3x20	4	-
			HMC3-25B	SOCKET SCREW, M3x25	內六角螺絲, M3x25	6	-
			HMC3-32B	SOCKET SCREW, M3x32	內六角螺絲, M3x32	6	-
			HMC3-8B	SOCKET SCREW, M3x8	內六角螺絲, M3x8	6	-
			HME3-10B	SET SCREW, M3x10	無頭內六角螺絲, M3x10	6	-
			HME3-18B	SET SCREW, M3x18	無頭內六角螺絲, M3x18	6	-
PV0115-1	WASHOUT LINKAGE	連接座	HME4-5B	SET SCREW, M4x5	無頭內六角螺絲, M4x5	6	-
			BK0016-1	WASHOUT LINKAGE	連接座	2	9,11

SPARE PARTS LIST / 維修零件包表格



THUNDER TIGER

No.	Description	中文名稱	Part No.	Description	中文名稱	Qty	Index Page
			BK0171	PIN	插銷	2	9,11
			HMS15	E RING	E 型扣環	2	9,11
PV0149-1	TAIL GEAR,X50	尾齒輪,X50	BA1144-1	WASHER(d5xD8xW0.15)	軸承墊片, d5xD8xW0.15	4	19
			BK0372	Tail Input Gear	尾齒輪/INPUT-20T	1	19
			BK0373-1	Tail Output Gear	尾齒輪/OUTPUT-20T	1	19
			BD7143	FIXED SCREW	傳動軸固定螺絲(長)	1	19
PV0197	BALL BEARING, d12xD18xW4	滾珠軸承組	HMV6701ZZY	BALL BEARING, d12xD18xW4	滾珠軸承組, d12xD18xW4	1	19
PV0244	BALL BEARING, d10xD19xW5	滾珠軸承組	HMV6800ZZY	BALL BEARING, d10xD19xW5	滾珠軸承組, d10xD19xW5	2	11,14
PV0261	SELF TAPPING SCREW (M2.6x14)	扁圓型自攻螺絲組	HSE2614N	BUTTON PHILLIPS TAPPING SCREW, M2.6x14	扁圓型自攻螺絲組(粗), M2.6x14	20	21
PV0268	LOCTITE #262	高強度防鬆劑(#262/紅色)	BV0450	LOCTITE #262	高強度防鬆劑(#262/紅色)	1	-
PV0270	THRUST BEARING GREASE	止推軸承潤滑脂	BV0452	THRUST BEARING GREASE	止推軸承潤滑脂	1	-
PV0365	THRUST BRG. d6xD12xW4.5	止推軸承組 d6xD12xW4.5	HMX0612	THRUST BEARING	止推軸承組	2	8,10
PV0407	TAIL PITCH SLIDER	尾旋翼滑座	BK0026	TAIL PITCH CONTROL LINK	尾旋翼連接頭	2	18
			BK0027	TAIL PITCH CONTROL SLIDER	尾旋翼控制滑座	1	18
			BK0075	LINKAGE BALL	連接頭	1	18
			BK0082	COLLAR, d2xD3xW4.3	軸環, d2xD3xW4.3	2	18
			HMJ2-8N	SCREW, M2x8	自攻螺絲(粗), M2x8	1	18,20
			HSE2-10B	SELF TAPPING SCREW, M2x10	扁圓自攻螺絲(細), M2x10	2	18
PV0450	SUS FLYBAR ROD	SUS平衡桿零件包	BK0631	SUS FLYBAR	SUS 平衡桿	1	7
PV0454	SKID PIPE END CAP	圓管塞	BK0065	SKID PIPE END CAP	圓管	8	15
PV0482-B	ULTRA LIGHT PADDLE(BLACK)	超輕量穩定翼(黑色)	BK0067B	ULTRA LIGHT PADDLE(20G, BLACK)	超輕量穩定翼(20G, 黑色)	2	7
			HME3-10B	SET SCREW, M3x10	無頭內六角螺絲, M3x10	2	7
PV0504	TAIL PITCH SLIDER SET	尾旋翼滑座組	BK0025	TAIL PITCH CONTROL FORK	尾旋翼控制座	1	18
			BK0026	TAIL PITCH CONTROL LINKAGE	尾旋翼連接頭	2	18
			BK0027	TAIL PITCH CONTROL SLIDER	尾旋翼控制滑座	1	18
			BK0028	TAIL PITCH CONTROL SLIDER BUSHING	尾旋翼控制軸套	1	18
			BK0075	LINKAGE BALL	連接頭	1	18
			BK0082	COLLAR, d2xD3xL4	軸環, d2xD3xL4	2	18
			BK0546	PIN, 2mm	插銷, 2mm	2	-
			HMF2-8N	SCREW, M2x8	圓頭十字螺絲, M2x8	1	18
			HSE2-10B	SELF TAPPING SCREW, M2x8	扁圓自攻螺絲(細), M2x8	2	18
			HMS15	E RING	E 型扣環	4	9,11
			HMV1060ZZY	BEARING, d6xD10xW3	滾珠軸承, d6xD10xW3	2	18
PV0523-1	CARBON TAIL BOOM	碳纖維尾管	BK2556	CARBON TAIL BOOM(663mm)	碳纖維尾管(663mm)	1	19
PV0665	ELEVATOR A ARM	升降舵A臂	BK0023	ELEVATOR CONTROL ARM LINK	升降舵連接座	2	15
			BK0084	PIN	插銷	1	15
PV0678-1	CARBON VERTICAL FIN	碳纖維垂直安定面	BK2190	CARBON VERTICAL FIN	碳纖維垂直安定面	2	19
			HMC3-25B	SOCKET SCREW, M3x25	內六角螺絲, M3x25	1	19
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	1	19
			HMC3-6B	SOCKET SCREW, M3x6	內六角螺絲, M3x6	4	19
			HMC3-10B	SOCKET SCREW, M3x8	內六角螺絲, M3x8	2	19
PV0679-T	TAIL SUPPORT	尾管支撐架組	BK0447	TAIL SUPPORT ROD END	尾管支撐架接頭	4	20
			BK0524-T	TAIL SUPPORT ROD	尾管支撐架	2	20
			HMJ2-8N	SELF TAPPING SCREW	自攻螺絲(細), M2x8	4	20
PV0681	MAIN HUB BOLT	主旋翼頭固定螺絲	BK0616	SOCKET SCREW, M3x20	內六角螺絲, M3x20	2	9
			HMM3Z	LOCK NUT, M3	止鬆螺帽, M3	2	9,12,16,20
PV0682	MAIN SHAFT BOLT	主軸齒輪固定螺絲	BK1197	MAIN SHAFT BOLT	凸肩內六角螺絲	2	16
			HMM3Z	LOCK NUT, M3	止鬆螺帽, M3	4	16
PV0769	THRUST BEARING	止推軸承組	HMX0409Y	THRUST BEARING	止推軸承, d4xD9xW4	2	18
PV0771	BEARING	滾珠軸承組	HMV940ZZY	BEARING, d4xD9xW4	滾珠軸承, d4xD9xW4	2	18

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THUNDER TIGER

No.	Description	中文名稱	Part No.	Description	中文名稱	Qty	Index Page
PV0919	BEARING	滾珠軸承組	HMV630ZZY	BEARING, d3xD6xW2.5	軸承, d3xD6xW2.5	4	6
PV1310-1	CANOPY BRACKET, X50	機殼固定座, X50	BK0102	FRUBBER GROMMET	機身固定墊圈	2	24
			BK2278	CANOPY BRACKET	機殼固定座	1	24
			HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	2	14,15,17,24
PV1312	FLYBAR JOINT BALL LINK	穩定翼連接桿組	BK2228	FLYBAR JOINT BALL LINK	穩定翼連接桿	4	11
PV1314	ELEVATOR ARM SET	升降舵控制組	BK0023	ELEVATOR CONTROL ARM LINK	升降舵連接座	1	15
			BK2514	METAL ELEVATOR CONTROL ARM	金屬升降舵控制臂	1	15
			BK0084	PIN	固定銷	1	15
			HME3-3B	SET SCREW, M3x3	無頭內六角螺絲, M3x3	1	15
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	1	15
			BK2515	COLLAR, d3xD5xW4.2	控制臂軸環, d3xD5xW4.2	1	15
			HME3-8B	SET SCREW, M3x8	無頭內六角螺絲, M3x8	1	15
PV1314-1	METAL ELEVATOR WASHER MOUNT SET(L)	金屬升降舵墊片座組(左)	BV2238	ELEVATOR WASHER MOUNT SET(L)	升降舵墊片座組(左)	1	13
			HMC2-4B	SOCKET SCREW, M2x4	內六角螺絲, M2x4	2	13
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	1	8,10,14,15,16,19,20,23
			BK2515	COLLAR, d3xD5xW4.2	控制臂軸環, d3xD5xW4.2	1	15
PV1314-2	METAL ELEVATOR WASHER MOUNT SET(R)	金屬升降舵墊片座組(右)	BV2237	ELEVATOR WASHER MOUNT SET(R)	升降舵墊片座組(右)	1	13
			HMC2-4B	SOCKET SCREW, M2x4	內六角螺絲, M2x4	2	13
			HME3-8B	SET SCREW, M3x8	無頭內六角螺絲, M3x8	1	15
PV1315	MAIN SHAFT LOCK RING	主軸止檔圈	BK2206	MAIN SHAFT LOCK RING	止檔圈	1	11
			HME4-3B	SET SCREW, M4x3	無頭內六角螺絲, M4x3	2	11,23
PV1316	ONE WAY CLUTCH HOUSING	單向離合器組	BV2281	ONE WAY CLUTCH HOUSING	單向離合組	1	16
			HSA3-8	BUTTON HEAD SOCKET SCREW, M3x8	半圓頭內六角螺絲, M3x8	4	16
			BK2524	MAIN GEAR WASHER	主齒輪墊片	1	16
PV1317	CYCLIC SERVO TRAY	循環螺距伺服機座	BK2259	SERVO FRAME B	伺服機座B	1	14
PV1318	TAIL BLADE SET (BLACK)	尾旋翼組(黑)	BK0404-B	TAIL BLADE(BLACK)	尾旋翼(黑)	2	19
			HMC3-16B	SOCKET SCREW (M3x16)	內六角螺絲(M3x16)	2	19
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	2	19
PV1319	DOUBLE LINK	雙頭連接桿	BK2179	DOUBLE LINK	雙頭連接桿	4	11
PV1320	COLLAR SET	軸環組	BK2187	COLLAR, d3xD4xW3.8	軸環, d3xD4xW3.8	4	6
			BK2515	COLLAR, d3xD5xW4.2	控制臂軸環, d3xD5xW4.2	2	5
			BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	4	6,9,11,17,19
			BK0082	COLLAR, d2xD3xW4.2	軸環, d2xD3xW4.2	4	18
			BK0076	COLLAR, d3xD4xW10	軸環, d3xD4xW10	2	-
PV1321	METAL SEESAW HUB	金屬穩定桿固定座	BV2186	METAL SEESAW HUB	金屬穩定桿固定座	1	6
			BK2187	COLLAR, d3xD4xW3.8	軸環, d3xD4xW3.8	2	6
			HSA3-10	BUTTON HEAD SOCKET SCREW, M3x10	半圓頭內六角螺絲, M3x10	2	6
PV1322	METAL MIXING LEVER	金屬混控臂	BV2183	METAL MIXING LEVER	金屬混控臂	2	6
			BK0649-1	LINKAGE BALL(A)	內六角連接頭螺絲(A)	4	6
			BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	2	6
			HSA3-10	BUTTON HEAD SOCKET SCREW, M3x10	半圓頭內六角螺絲, M3x10	2	6
PV1323	METAL HEAD BUTTON	金屬旋翼頭制動器	BK2182	METAL HEAD BUTTON	金屬旋翼頭制動器	1	6,10
			HMC25-8B	SOCKET SCREW, M2.5x8	內六角螺絲, M2.5x8	1	6,10
PV1324	METAL MAIN ROTOR HUB	金屬主旋翼固定座	BV2181	METAL MAIN ROTOR HUB	金屬主旋翼固定座	1	6
			BK2572	INNER DAMPER(7mm)	內避震墊圈(7mm)	2	8,10
			BK2573	OUTER DAMPER(7mm)	外避震墊圈(7mm)	2	8,10
			BK0616	SOCKET SCREW, M3x20	內六角螺絲(半牙), M3x20	2	9
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	2	9
PV1325	METAL WASHOUT BASE	金屬控制臂座	BK2196	METAL WASHOUT BASE	控制臂座	1	9
PV1326	METAL SWASHPLATE SET	金屬十字盤組	BV2188A	METAL SWASHPLATE	金屬十字盤組	1	9

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PV1327	SWASHPLATE CONTROL ROD	十字盤穩定桿	BK2209	SWASHPLATE CONTROL ROD	十字盤穩定桿	2	9
			BK0075	LINKAGE BALL	連接頭	2	9,18
PV1330	METAL TAIL ROTOR HUB	金屬尾旋翼固定座	BK2284	TAIL ROTOR HUB	尾旋翼固定座	2	26
			HME3-3B	SET SCREW, M3x3	無頭內六角螺絲, M3x3	1	26
			HMC25-6B	SOCKET SCREW, M2.5x6	內六角螺絲, M2.5x6	2	26
			HMO26	WASHER, d2.8xD5xW0.5	墊片, d2.8xD5xW0.5	2	26
PV1331-1	METAL TAIL GRIP, X50	金屬尾旋翼座(軸傳), X50	BK2580	METAL TAIL GRIP	金屬尾旋翼座	4	18
			HMX0409Y	THRUST BEARING, d4xD9xW4	止推軸承, d4xD9xW4	2	18
			HMV940ZZY	BEARING, d4xD9xW4	滾珠軸承, d4xD9xW4	2	18
			BK2276	WASHER, d4xD6xW0.5	尾旋翼轉座墊片, d4xD6xW0.5	2	18
			HMC2-10B	SOCKET SCREW, M2x10	內六角螺絲, M2x10	2	18
			BK0082	COLLAR, d2xD3xW4.2	軸環, d2xD3xW4.2	2	18
PV1335	MAIN SHAFT BEARING BLOCK	主軸上下軸承座	BK2236	UPPER BRG HOUSING	上軸承座	1	11
			BK2225	LOWER BRG HOUSING	下軸承座	1	14
			BK2219	FRAME SPACER	六角連接支柱	4	11,14
PV1336	LINKAGE ROD SET	連接桿組	BK0092	LINKAGE ROD, 30mm	連接桿, 30mm	4	22
			BK2516	LINKAGE ROD, 40mm	連接桿, 40mm	6	11
			BK0436	LINKAGE ROD, 55mm	連接桿, 55mm	1	22
PV1339	OUTER DAMPER(7mm)	外避震墊圈(7mm)	BK2573	OUTER DAMPER(7mm)	外避震墊圈(7mm)	4	8,10
PV1339-1	INNER DAMPER(7mm)	內避震墊圈(7mm)	BK2572	INNER DAMPER(7mm)	內避震墊圈(7mm)	4	8,10
PV1340	MAIN GEAR WASHER	主齒輪墊片	BK2524	MAIN GEAR WASHER	主齒輪墊片	4	16
PV1341-1	MAIN GEAR COLLAR, X50	主齒輪組軸環, X50	BK2290	COLLAR	軸環	1	16
PV1342	ONE WAY CLUTCH SHAFT	單向離合器軸組	BK2282	ONE WAY BEARING SHAFT	單向軸套	1	16
			BK1197	MAIN SHAFT BOLT, M3x20	內六角半牙螺絲, M3x20	1	16
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	1	16
			BK2524	MAIN GEAR WASHER	主齒輪墊片	1	16
PV1345	PHASING CONTROL TRACK	相位控制導軌	BK2248	PHASING CONTROL TRACK	相位控制導軌	1	17
			HME3-18B	SET SCREW, M3x18	無頭內六角螺絲, M3x18	2	17
			HMC2-4B	SOCKET SCREW, M2x4	內六角螺絲, M2x4	2	17
PV1346	CANOPY RETAINING POST	機殼固定鋁柱	BK2249	CANOPY RETAINING POST	機殼固定鋁柱	2	17
			HME3-18B	SET SCREW, M3x18	無頭內六角螺絲, M3x18	2	17
PV1348	METAL ELEVATOR LEVER ROD	金屬升降舵推拉桿	BK2161	ELEVATOR LEVER ROD	升降舵推拉桿	1	15
			HME3-8B	SET SCREW, M3x8	無頭內六角螺絲, M3x8	1	15
			BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲(A)	2	15
PV1356	BLADE SUPPORT	主旋翼固定架	BK0116-1	BLADE SUPPORT	主旋翼固定架	1	-
PV1357	SCREW BAG	螺絲零件包	BK0087	WASHER d3xD8xW1.4	墊片, d3xD8xW1.4	12	14,16,23
			HMX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	12	14,15,17,24
			HMC2-4B	SOCKET SCREW, M2x4	內六角螺絲, M2x4	6	13,17
			HME4-5B	SET SCREW, M4x5	無頭內六角螺絲, M4x5	6	7,15
			HME3-4B	SET SCREW, M3x4	無頭內六角螺絲, M3x4	6	19
			HMS15	E RING	E型扣環	6	9,11
			HMC3-16B	SOCKET SCREW, M3x16	內六角螺絲, M3x16	6	19,20
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	6	9,12,16,19,20
PV1358	FRAME SPACER	六角連接支柱	BK2219	FRAME SPACER	六角連接支柱	8	11,12,14
PV1361	SPINDLE SET(7mm), X50	固定軸組(7mm), X50	BK2214	HARDENED FEATHERING SHAFT	強化固定軸(D7)	1	8,10
			BK2525	FLAP COLLAR, d7xD10xW1.5	避震軸環, d7xD10xW1.5	2	8,10
			BK2216	THRUST WASHER, d10xD13xW0.5	止推墊片, d10xD13xW0.5	2	8,10
			BK0435	WASHER, d4xD11xW1.7	墊圈, d4xD11xW1.7	2	8,10
			HMC4-8B	SOCKET SCREW, M4x8	內六角螺絲, M4x8	2	8,10
PV1362	SPINDLE BRG. SET(7mm)	固定軸軸承組(7mm)	HMV1370ZZWY	BEARING, d7xD13xW5	滾珠軸承, d7xD13xW5	2	8,10

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PV1363	TAIL GRIP BEARING	尾旋翼座軸承組	HMV1050ZZWY	BEARING, d5xD10xW3	滾珠軸承, d5xD10xW3	2	18
PV1366	TAIL GEAR MOUNT SET	傘齒輪固定座	BV2269	TAIL GEAR MOUNT SET	傘齒輪固定座組	1	12
PV1367	TAIL PITCH CONTROL LEVER SET	尾旋翼控制桿組	BK2512	TAIL PITCH CONTROL LEVER	尾旋翼控制桿	1	19
			BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	1	19
			BK0649-2	LINKAGE BALL (B)	內六角連接頭自攻螺絲 (B)	1	19
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	1	19
			HMV740ZZY	BEARING, d4xD7xW2.5	滾珠軸承, d4xD7xW2.5	2	19
PV1368	BEARING BLOCK SET	軸傳軸承座組	BV2265	BEARING BLOCK SET	軸傳軸承座組	2	12
PV1371	TAIL GEAR SET	傘齒輪-25T	BK2267	TAIL GEAR-A	傘齒輪A-25T	1	12
			BK2268	TAIL GEAR-B	傘齒輪B-25T	1	12
			BD7143	FIXED SCREW (L)	傳動軸固定螺絲 (長)	1	12
			BK2509	WASHER, d12xD14.5xW0.2	墊片, d12xD14.5xW0.2	2	12
PV1375	TAIL DRIVE SHAFT SET	尾驅動軸組	BV2552	TAIL DRIVE SHAFT SET	尾驅動軸組	1	17
			HMC2512B	SOCKET SCREW (M2.5X12)	內六角螺絲, M2.5x12	2	17
			HMM25Z	NYLON NUT (M2.5)	止鬆螺帽, M2.5	2	17,21
PV1376	TAIL DRIVE SHAFT BRG SET	傳動軸軸承套組	BK2529	TAIL DRIVE SHAFT BRG	傳動軸軸承套	2	17
			HMV1680ZZY	BEARING	滾珠軸承, d8xD16xW5	2	17
PV1377	ROD GUIDE	固定環	BK2559	ROD GUIDE	固定環	3	19
			HNN2-6B	TAPPING SCREW, M2×6	墊圈自攻螺絲, M2×6	3	19
PV1378	TAIL ROTOR SHAFT	尾旋翼橫軸組(軸傳)	BK2280	TAIL ROTOR SHAFT	尾旋翼橫軸(軸傳)	1	18
			HMY2-10	PIN, d2x10	固定銷, d2x10	1	18
			HME3-4B	SET SCREW, M3x4	無頭內六角螺絲, M3x4	1	18
PV1379	LINKAGE BALL SCREW SET	球頭螺絲組	BK0649-1	LINKAGE BALL SCREW	內六角連接球頭螺絲	10	6,7,8,9,10,15,17
			BK0649-2	LINKAGE BALL SLETTAPPING SCREW	內六角連接球頭自攻螺絲	10	19
PV1382	METAL FB MAIN ROTOR HUB	金屬無平衡翼主旋翼固定座	BK2510	METAL FB MAIN ROTOR HUB	金屬無平衡翼主旋翼固定座	1	8,10
			BK2572	INNER DAMPER, 7mm	內避震墊圈, 7mm	2	8,10
			BK2573	OUTER DAMPER, 7mm	外避震墊圈, 7mm	2	8,10
			BK0616	SOCKET SCREW, M3x20	內六角螺絲 (半牙), M3x20	2	9,11
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	2	9,11
PV1383	METAL FB CONTROL LEVER SET	金屬無平衡翼控制搖臂組	BV2508	METAL FB CONTROL LEVER SET	金屬無平衡翼控制搖臂組	2	11
			HSA3-14	BUTTON HEAD SOCKET SCREW, M3x14	半圓頭內六角螺絲, M3x14	2	11
			BK0077	COLLAR, D3XD4XW6	軸環, d3xD4xW6	2	11
			BK0088	WASHER, D3XD5XW0.5	墊片, d3xD5xW0.5	2	11
PV1384	METAL FB ROTOR GRIP LEVER SET	金屬無平衡翼轉座擺臂組	BK2575	METAL FB ROTOR GRIP LEVER	金屬無平衡翼轉座擺臂	2	10
			BK2576	METAL FB ROTOR GRIP POST	金屬無平衡翼連接座	2	10
			HSA3-6B	BUTTON HEAD SOCKET SCREW, M3x6	半圓頭內六角螺絲, M3x6	4	10
			HMC3-8B	SOCKET SCREW, M3×8	內六角螺絲, M3×8	2	10
			BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲 (A)	2	10
PV1385	METAL FB ELEVATOR LEVER ROD	金屬無平衡翼升降舵推拉桿	BK2571	METAL FB ELEVATOR LEVER ROD	金屬無平衡翼升降舵推拉桿	1	15
			BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲 (A)	2	15
			HME3-8B	SET SCREW, M3x8	無頭內六角螺絲, M3x8	1	15
PV1386	METAL 120° FB CONTROL ARM SET	金屬 120° 無平衡翼控制搖臂組	BV2570-L	METAL 120° FB CONTROL ARM SET-LEFT	金屬 120° 無平衡翼控制搖臂組 (左)	1	17
			BV2569-R	METAL 120° FB CONTROL ARM SET-RIGHT	金屬 120° 無平衡翼控制搖臂組 (右)	1	17
			BK0077	COLLAR, d3xD4xW6	軸環, d3xD4xW6	2	17
			BK0649-1	LINKAGE BALL (A)	內六角連接頭螺絲 (A)	6	17
PV1387	TITANIUM LINKAGE ROD SET, 76mm	鈦合金連接桿組, 76mm	BK2596	LINKAGE ROD, 52L	連接桿, 52L	4	11
			BK1925	BALL LINK	單頭連接桿	8	11
			BD7425	WRENCH	拉桿調整扳手	1	11
PV1388	HARDENED MAIN SHAFT	主軸	BK2277	HARDENED MAIN SHAFT	主軸	1	9
			BK0616	SOCKET SCREW, M3x20	內六角螺絲 (半牙), M3x20	2	9

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			HMM3Z	NYLON NUT, M3x20	止鬆螺帽, M3x20	2	9
PV1389	TAIL BOOM BRACKET	尾管固定座	BK2531	TAIL BOOM BRACKET-L	尾管固定座(左)	1	12
			BK2532	TAIL BOOM BRACKET-R	尾管固定座(右)	1	12
			BK2219	FRAME SPACER	六角連接支柱	4	12
PV1390	TAIL DRIVE GEAR SHAFT	軸傳驅動軸	BK2506	TAIL DRIVE GEAR SHAFT	軸傳驅動軸	1	12
			BD7143	SHAFT FIXED SCREW	傳動軸固定螺絲(長)	1	12
			HMY2-12	PIN, d2x12	軸承滾針, d2x12	1	12
PV1391	FRONT TAIL DRIVE GEAR SET 22T	軸傳尾驅動輪-22T	BK2554	COLLAR	軸套	1	12
			BK2583	TAIL DRIVE GEAR-22T	軸傳尾驅動輪-22T	1	12
			HMY2-12	PIN, d2x12	軸承滾針, d2x12	1	12
PV1392	METAL MOTOR MOUNT	金屬馬達固定座	BK2260	UPPER MOTOR MOUNT	馬達上座	1	23
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	4	23
			BK0087	WASHER, d3xD8xW1.4	墊片, d3xD8xW1.4	4	23
PV1393	METAL MOTOR PINION BLOCK	金屬馬達齒輪固定座	BV2262	LOWER MOTOR MOUNT SET	馬達下座組	1	14
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	2	14
			BK0087	WASHER, d3xD8xW1.4	墊片, d3xD8xW1.4	2	14
PV1394	MOTOR PINION 15T	馬達齒-15T	BK2584	MOTOR PINION-15T	馬達齒-15T	1	23
			HME4-3B	SET SCREW, M4x3	無頭內六角螺絲, M4x3	2	23
PV1395	MAIN GEAR 135T	主齒輪-135T	BK2581	MAIN GEAR-135T	主齒輪-135T	1	16
PV1396	AUTOROTATION TAIL DRIVE PULLEY 100T	軸傳尾驅動主齒-100T	BK2582	AUTOROTATION TAIL DRIVE PULLEY-100T	軸傳尾驅動主齒-100T	1	16
PV1397	STRAP RUBBER	束帶橡膠墊圈	BK2551	RUBBER GROMMETS	橡膠墊圈	4	13
PV1398	CARBON FRAME (1)	碳纖維板-單片	BK2255	SIDE FRAME	機身側板	1	13
PV1399	GYRO TRAY & SERVO MOUNTING	陀螺儀座及墊塊組	BK2271	GYRO TRAY	陀螺儀座	1	17
			BK2205	SERVO BLOCK	伺服機墊塊	4	21
			HMX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	4	14,15,17,24
			HSE2620N	BUTTON PHILLIPS TAPPING SCREW	扁圓自攻螺絲(粗), M2.6x20	8	21
PV1400	METAL CONTROL ARM BRACE	金屬控制臂支架	BK2273	CONTROL ARM TRAY	控制臂座	2	21
			BK2219	FRAME SPACER	六角連接支柱	2	11,12,14
			BK0088	FLAT WASHER, d3xD5xW0.5	墊片, d3xD5xW0.5	2	9,11,17
			HSA3-10	BUTTON HEAD SOCKET SCREW, M3x10	半圓頭內六角螺絲, M3x10	2	6,9,17
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	4	8,10,14,15,16
PV1401	METAL MAIN ROTOR GRIP SET	金屬旋翼轉座組	BV2574	METAL MAIN ROTOR GRIP	金屬旋翼轉座組	2	8,10
			BK2216	THRUST WASHER	止推墊片	2	8,10
			HMX0612	THRUST BEARING	止推軸承	2	8,10
			BK2578	METAL ROTOR GRIP POST	金屬旋翼搖臂支柱	2	8
			BK2579	METAL ROTOR GRIP LEVER	金屬轉座擺臂	2	8
			HSA3-6	BUTTON HEAD SOCKET SCREW(M3x6)	圓頭內六角螺絲	4	8,10,20
			BK0649-1	LINKAGE BALL(A)	內六角連接頭螺絲	2	6,7,8,9,10,15,17
			HMC3-8B	SOCKET SCREW, M3x8	內六角螺絲	2	8,10,23
PV1402	METAL MAIN ROTOR GRIP POST	金屬旋翼轉座支柱	BK2578	METAL ROTOR GRIP POST	金屬旋翼搖臂支柱	2	8
			BK0649-1	LINKAGE BALL(A)	內六角連接頭螺絲	2	6,7,8,9,10,15,17
PV1403	METAL FLYBAR CONTROL ARM	金屬穩定翼轉臂組	BK2184	METAL FLYBAR CONTROL ARM	金屬穩定翼轉臂	2	7
			BK2185	METAL FLYBAR CONTROL ARM POST	金屬穩定翼轉臂支柱	2	7
			BK0649-1	LINKAGE BALL(A)	內六角連接頭螺絲	2	7
			HMC2510B	SOCKET SCREW	內六角螺絲	2	7
			HME4-5B	SET SCREW	無頭內六角螺絲	2	7
PV1404	METAL FLYBAR CONTROL ARM POST	金屬穩定翼轉臂支柱	BK2185	METAL FLYBAR CONTROL ARM POST	金屬穩定翼轉臂支柱	2	7
			BK0649-1	LINKAGE BALL(A)	內六角連接頭螺絲	2	7
PV1405	METAL FLYBAR CONTROL LEVER	金屬穩定翼控制臂組	BV2199	METAL FLYBAR CONTROL LEVER	金屬穩定翼轉臂組	2	9
			BK0077	COLLAR	軸套	2	9

SPARE PARTS LIST / 維修零件包表格

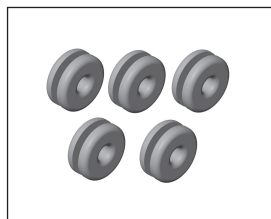


No.	Description	中文名稱	Part No.	Description	中文名稱	Qty	Index Page
			HSA3-10	BUTTON HEAD SOCKET SCREW	圓頭內六角螺絲	2	9
			BK0088	WASHER	墊片	2	9
PV1415	METAL TAIL SUPPORT BRACKET	金屬尾支撐桿固定座	BK2563	METAL TAIL SUPPORT BRACKET(UPPER)	金屬固定座(上)	1	20
			BK2564	METAL TAIL SUPPORT BRACKET(LOWER)	金屬固定座(下)	1	20
			HMM3Z	SET SCREW	止鬆螺帽	2	20
			HMC3-16B	SOCKET SCREW	內六角螺絲	2	20
PV1417	METAL ROTOR GRIP LEVER	金屬轉座擺臂	BK2579	METAL ROTOR GRIP LEVER	金屬轉座擺臂	2	8
			HSA3-6	BUTTON HEAD SOCKET SCREW, M3x6	圓頭內六角螺絲	4	8
			HMC3-8B	SOCKET SCREW, M3x8	內六角螺絲	2	8
PV1418	METAL MAIN ROTOR GRIP	金屬旋翼轉座(本體)	BV2574	METAL MAIN ROTOR GRIP	金屬旋翼轉座組	2	8,10
			BK2216	THRUST WASHER	止推墊片	2	8,10
			HMX0612	THRUST BEARING	止推軸承	2	8,10
PV1419	REVEIVER TRAY	接收機座	BK2270	RECEIVER TRAY	接收機座	1	14
			BK2219	FRAME SPACER	六角連接支柱	1	14
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	2	7,8,10,14,15,16,19,20,23
			HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	4	14,15,17,24
			BK0087	WASHER, d3xD8xW1.4	墊片, d3xD8xW1.4	2	14,16,23
PV1420	BATTERY TRAY	電池座	BK2274	BATTERY TRAY	電池座	1	15
			HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	4	14,15,17,24
PV1421	BOTTOM FRAME	底盤	BK2258	BOTTOM FRAME	底盤	1	15
			BK2253	FRAME SPACER	六角支柱, 26	2	15
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	2	7,8,10,14,15,16,19,20,23
			HMC3-14B	SOCKET SCREW, M3x12	內六角螺絲, M3x14	2	15,20
			HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	2	14,15,17,24
PV1422	LONG LINKAGE BALL SCREW	加長型球頭螺絲組	BK2279	HEX POST	內六角連接頭	4	17
PV1423	TAIL SUPPORT BRACE	尾管支撐架連接座	BK2553	SUPPORT BRACKET	支撐架	2	20
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	1	7,8,10,14,15,16,19,20,23
			HMM3Z	NYLON NUT, M3	止鬆螺帽, M3	1	20
			HNJ-1	NYLON STRAP	束帶, 小	4	20
PV1424	DOUBLE LINKAGE SET	雙頭推拉桿	BK2555	TAIL SERVO LINKAGE ROD, 580mm	雙頭推拉桿, 580L	1	22
			BK0086	BALL LINK	單頭連接桿	2	11,22
PV1425	METAL TAIL CASE	金屬尾座	BV2594	METAL TAIL UNIT HOUSING SET	金屬尾座組	1	19
			BK2595	METAL TAIL PITCH CONTROL HOUSING	尾旋翼控制桿座	1	19
			BK2503	TAIL CASE BUTTON	尾管固定片	1	19
			HMC25-6B	SOCKET SCREW, M2.5x6	內六角螺絲, M2.5x6	1	18
			HMC2-5B	SOCKET SCREW, M2x5	內六角螺絲, M2x5	1	19
			HMC3-6B	SOCKET SCREW, M3x6	內六角螺絲, M3x6	1	19
			HMC3-10B	SOCKET SCREW, M3x10	內六角螺絲, M3x10	2	7,8,10,14,15,16,19,20,23
PV1431-G	ABS CANOPY-GREEN	ABS 機殼 (綠)	BK2177A-G	ABS CANOPY-GREEN	ABS 機殼-綠	1	24
			BK0102	RUBBER GROMMET	機身固定墊圈	2	24
			BK2278	CANOPY BRACKET	機殼固定座	1	24
			HNX3-12B	S.B.H SELF TAPPING SCREW	半圓頭內六角自攻螺絲	2	14,15,17,24
PV1604	SERVO MOUNTING SET	伺服機墊片組	BK3103	SERVO MOUNTING	伺服機墊片	6	21
			BK3132	SERVO NUT	伺服機螺帽	6	21
			BK0104	SERVO MOUNTING	伺服機固定片	4	21

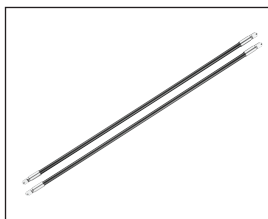
OPTIONAL PARTS / 改裝零件表



THUNDER TIGER



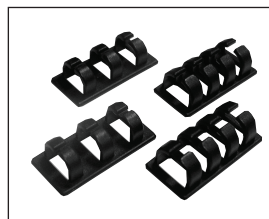
PV0062-Y
RUBBER GROMMETS(YELLOW)
機身固定墊圈組 (黃色)



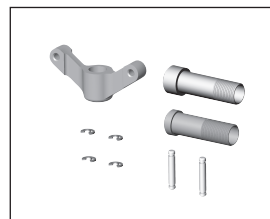
PV0103
CARBON TAIL BOOM SUPPORT
碳纖維尾支撐架組



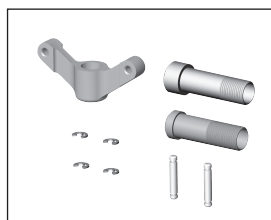
PV0269
PLASTIC GEAR GREASE (WHITE)
塑膠軸承潤滑脂 (白色)



PV0384
WIRE CLAMP
電線整理零件包



PV0439
METAL TAIL PITCH FORK
尾旋翼控制座



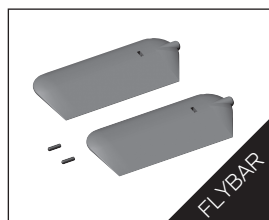
PPV0439-L
METAL TAIL PITCH FORK(BLUE)
尾旋翼控制座 (藍)



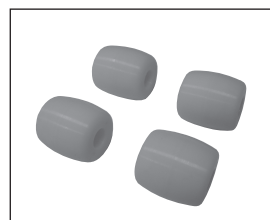
PV0457
METAL TAIL SLIDER
金屬尾旋翼控制滑座



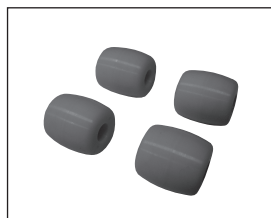
PV0466
METAL TAIL PITCH FORK
金屬尾旋翼控制座



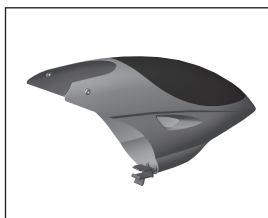
PV0482-R
ULTRA LIGHT PADDLE(RED), 20g
超輕量穩定翼(紅)20g



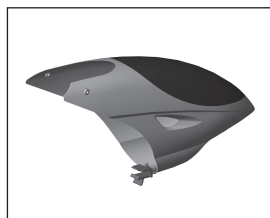
PV0512-Y
SKID DAMPER (YELLOW)
腳架墊圈(黃)



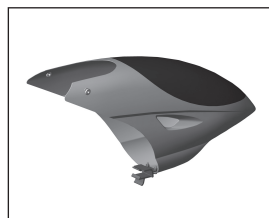
PV0512-L
SKID DAMPER (BLUE)
腳架墊圈(藍)



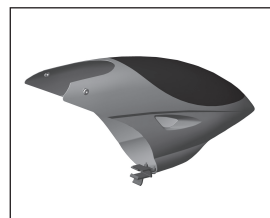
PV1310-L
FRP CANOPY (BLUE)
FRP 機殼 (藍)



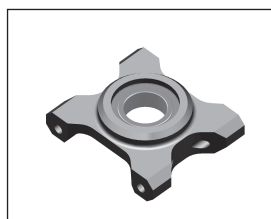
PV1310-R
FRP CANOPY (RED)
FRP 機殼 (紅)



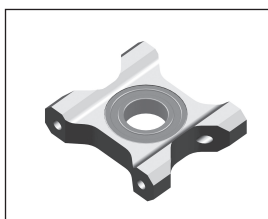
PV1310-Y
FRP CANOPY (YELLOW)
FRP 機殼 (黃)



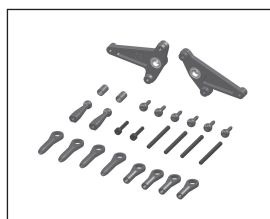
PV1310-W
FRP CANOPY (WHITE)
FRP 機殼 (白殼)



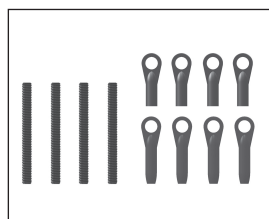
PV1406
METAL UPPER-BRG BLOCK
金屬上軸承座



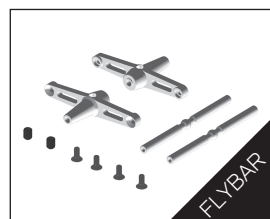
PV1407
METAL LOWER-BRG BLOCK
金屬下軸承座



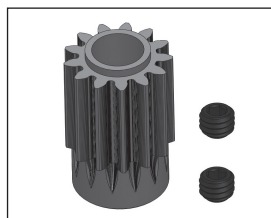
PV1409
140° METAL CONTROL ARM
140° 金屬控制搖臂



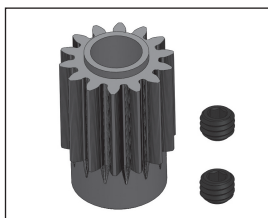
PV1410
140° CONTROL ARM LINKAGE ROD
140° 控制搖臂連接桿



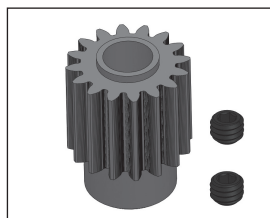
PV1414
METAL STABILIZER CONTROL CAGE
金屬穩定翼控制框



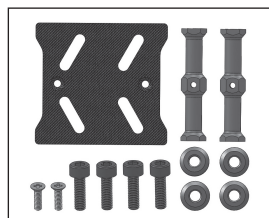
PV1426
MOTOR PINION 13T
馬達齒-13T



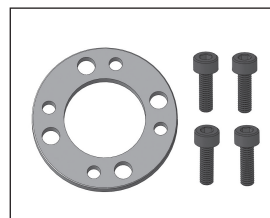
PV1427
MOTOR PINION 14T
馬達齒-14T



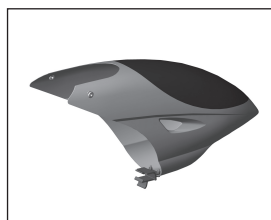
PV1428
MOTOR PINION 16T
馬達齒-16T



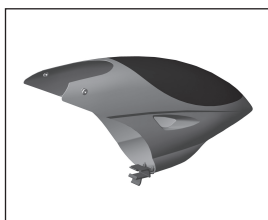
PV1429
CARBON GYRO TRAY
碳纖維陀螺儀座組



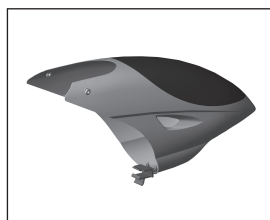
PV1430
MOTOR MOUNT ADAPTOR
馬達墊片



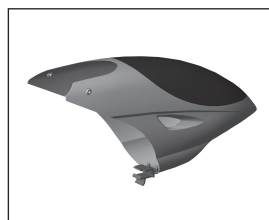
PV1431-R
ABS CANOPY (RED)
ABS 機殼 (紅)



PV1431-W
ABS CANOPY (WHITE)
ABS 機殼 (白殼)

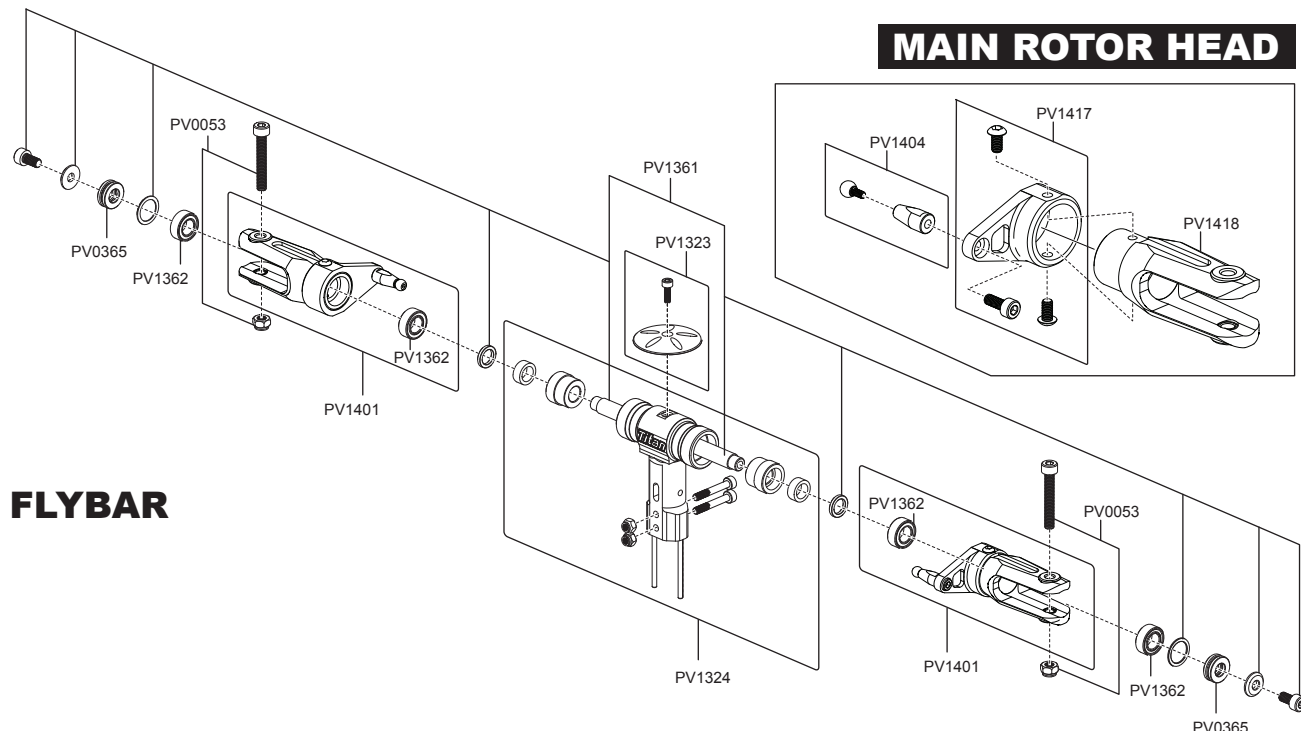


PV1431-Y
ABS CANOPY (YELLOW)
ABS 機殼 (黃)

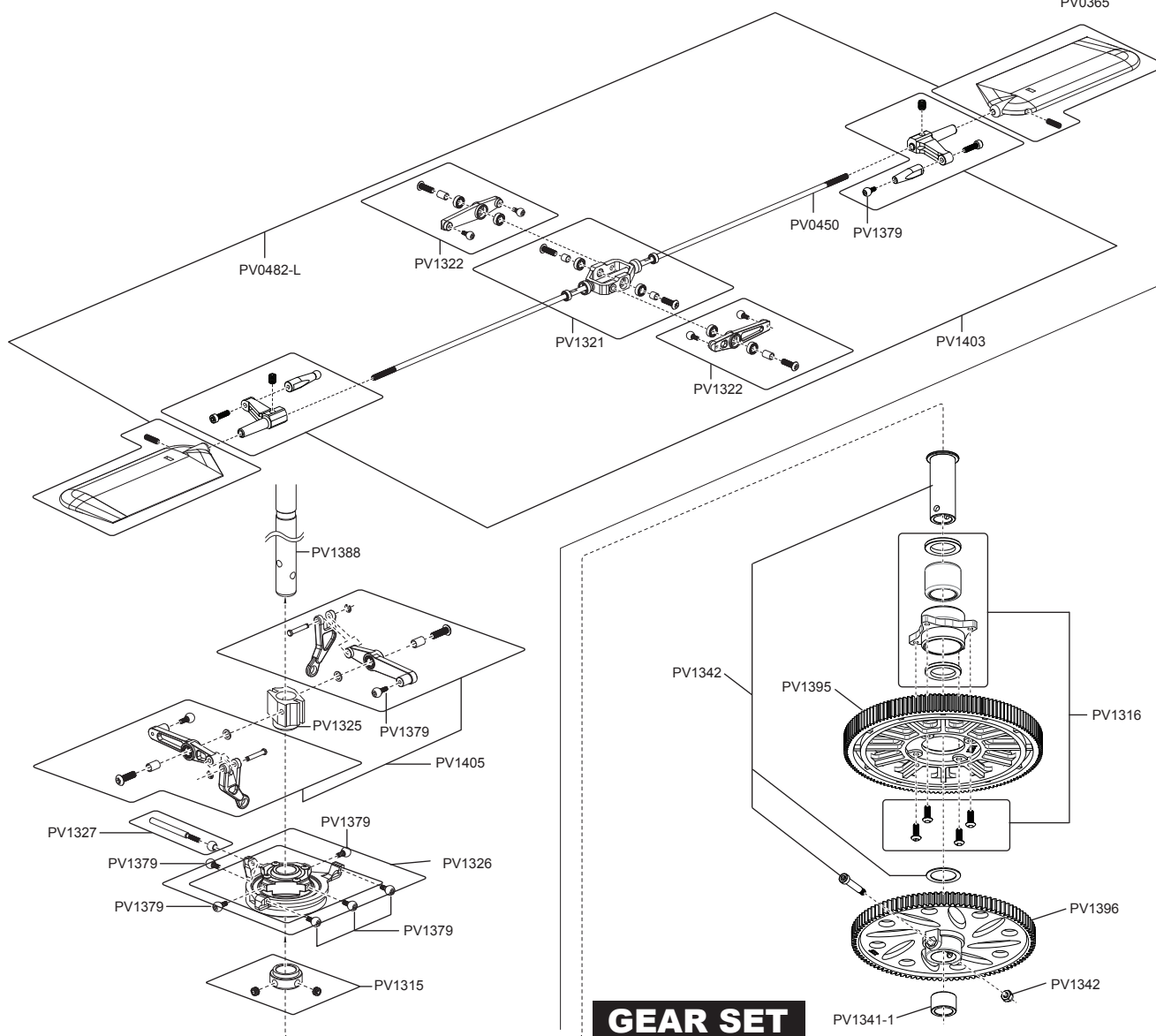


PV1431-L
ABS CANOPY (BLUE)
ABS 機殼 (藍)

MAIN ROTOR HEAD

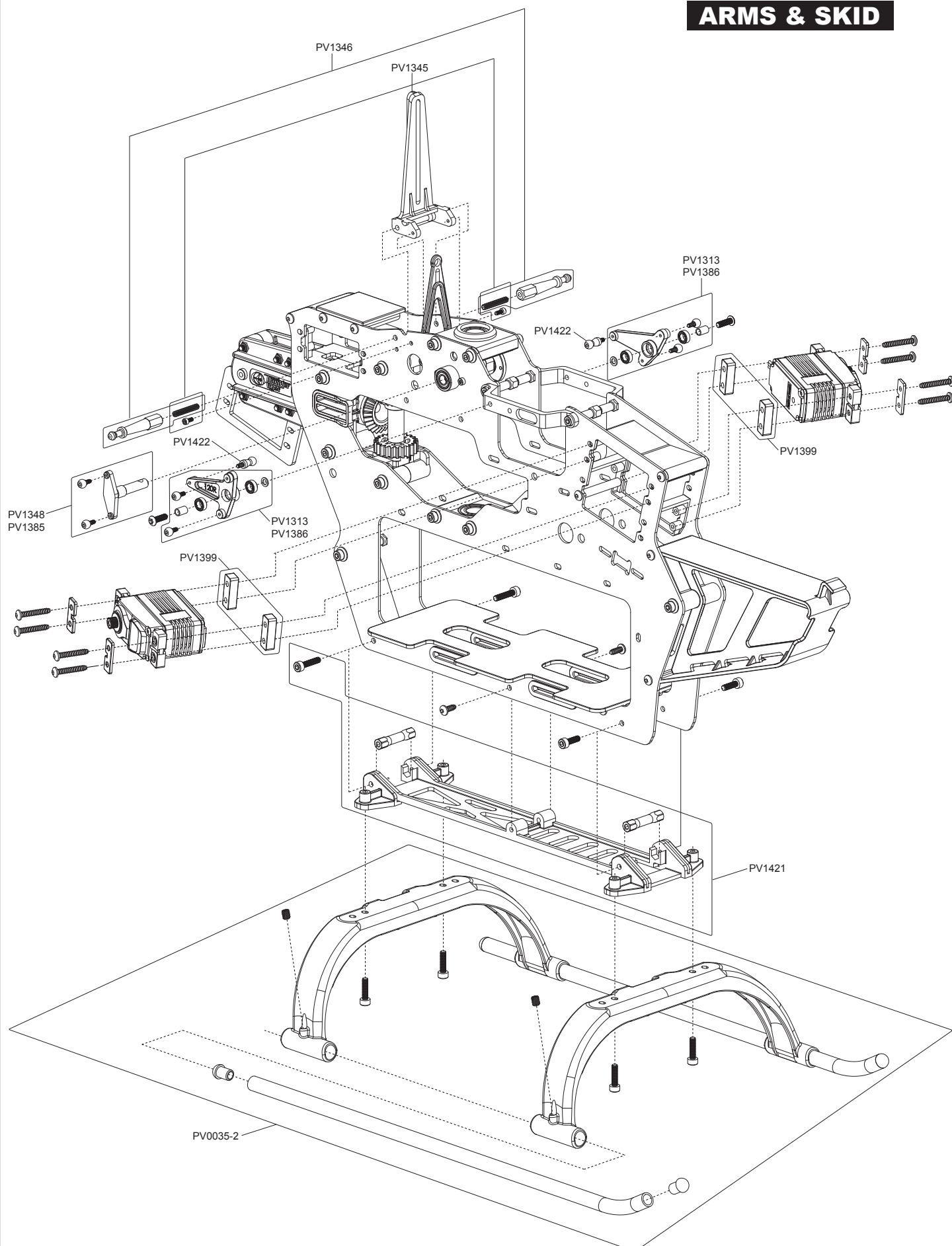


FLYBAR



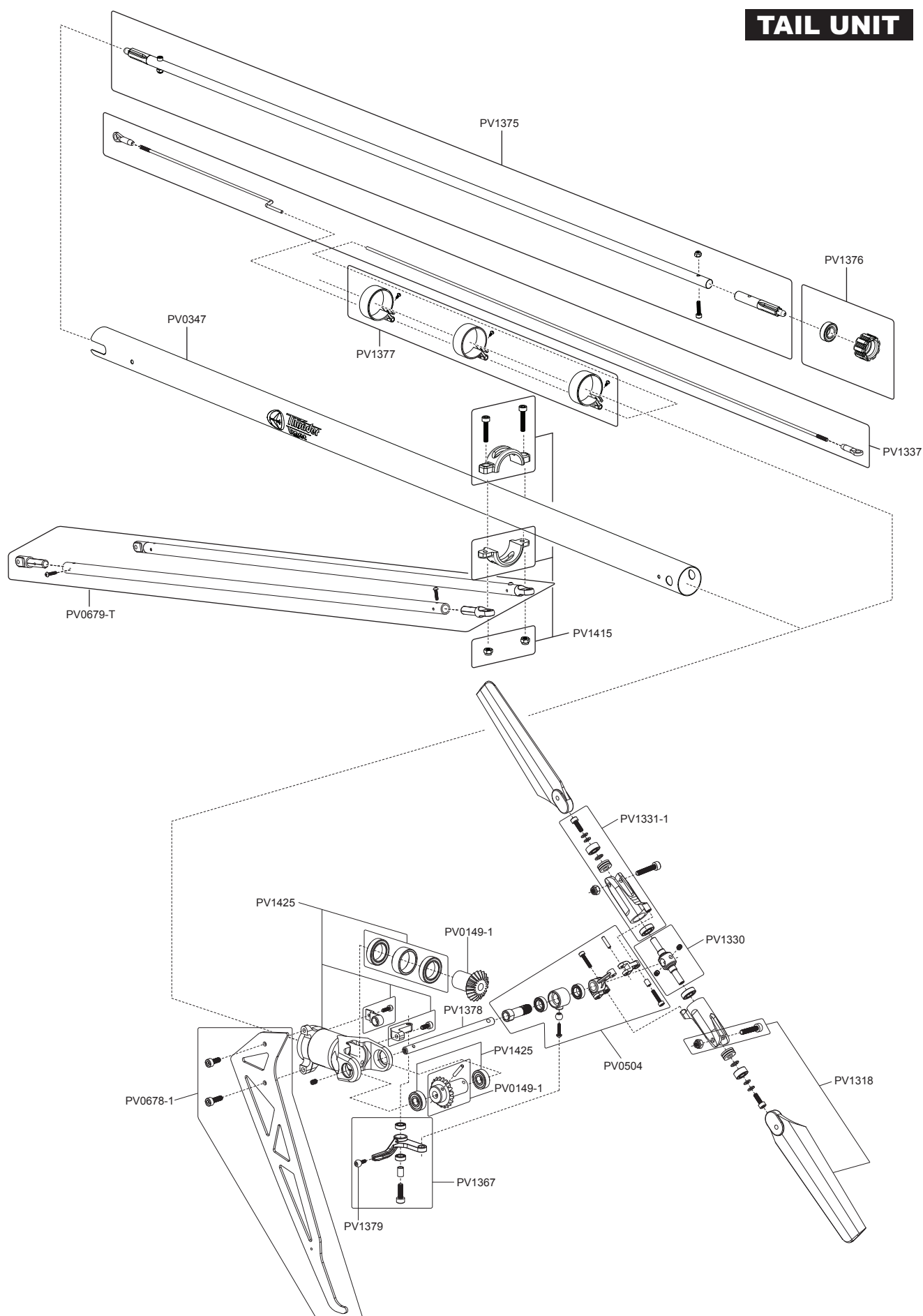
GEAR SET

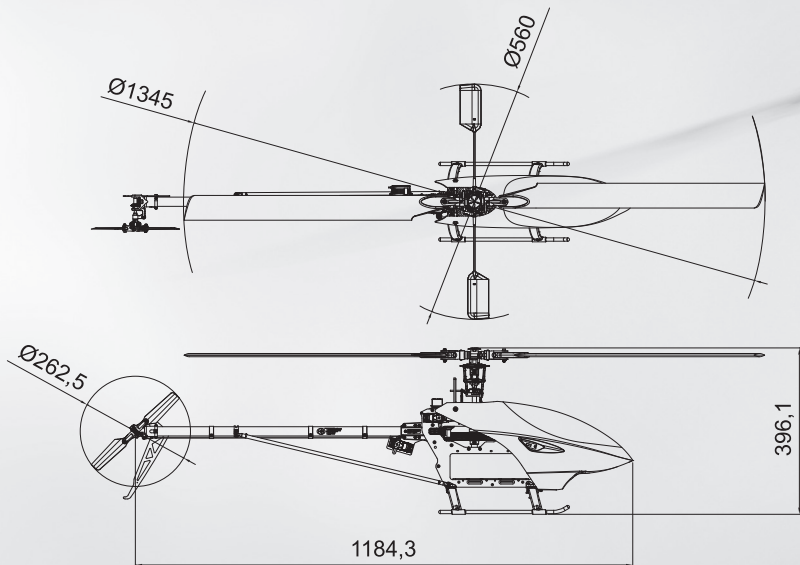
ARMS & SKID





TAIL UNIT





SPECIFICATION / 規格表

Product Name / 產品名稱		Titan X50E	Titan X50EF
Item No. / 料號		4756-K10	4757-K10
Rotor Head / 主旋翼頭型式		Flybar	Flybarless
Length / 總長		1,200 mm (47.24")	
Width / 總寬		200 mm (7.87")	
Height / 總高		400 mm (15.7")	
Main Blade / 主旋翼	Length / 長度	600 mm (23.62")	
	Diameter / 迴轉直徑	1,345 mm (52.95")	
Tail Blade / 尾旋翼	Length / 長度	95 mm (3.74")	
	Diameter / 迴轉直徑	260 mm (10.24")	
Main Gear / Pinion 主齒輪 / 驅動齒數		135T / 15T (standard), 12-14T (option)	
Gear Ratio (E:M:T) / 齒輪比		1:9.0:4.55	
Full Weight w/o Batt. / 全配重量不含電池		2,750g / 6.06 lbs	2,700g / 5.95 lbs
Max. Battery Pack on Board / 電池最大承載量		180 X 45 X 55 mm (7.08 x 1.77 x 2.16")	
Recommended Power Configuration / 動力搭配建議 2,200~2,300 rpm		Battery Pack	Motor KV
		8S 3.7~ 4.5Ah	740~890
		10S 3.2~ 3.7Ah	600~680
		ESC	Pinion
		100~120A	14~ 15
		120A	14~ 15
		90A	14~ 15

FEATURES / 特色

MUTUAL FEATURES

1. Top mounted motor for better CG and efficient heat dissipation
2. Motor mount for both M3x30 mm and M4x25/30 mm bolt position
3. Accepts wide range of motor sizes: maximum diameter 52 mm
4. Enlarged 135T vented main gear (Mod 0.8)
5. Adjustable gear ratio to accommodate different motor KV
6. Extended electronics tray for installation versatility
7. All metal control arms assembly eliminate the need for upgrades
8. Integrated reinforced ribs and control arms base around the motor for strength
9. Adjustable motor mount and pinion bearing block
10. Enlarged room for Lipo battery pack, applicable to a 8-12-cell
11. 120-degree swashplate (standard); 140-degree (Option)
12. One-piece carbon frame with slim profile (only 30 mm wide)
13. Hardened 10 mm main shaft, 7 mm feathering shaft and 5 mm tail output shaft
14. High-quality, color shifting preprinted canopy
15. Lightweight and rugged landing skid
16. Efficient torque tube drive system for crisp rudder response and 100% power transfer
17. All metal, high precision and heavy duty tail rotor system
18. Compound carbon/aluminum tail boom to reduce vibration
19. Lightweight metal tail boom support bracket and tail case
20. Dual radial, single thrust bearings and metal tail grips with 95 mm blades
21. Easy to install trail rotor rod guide

UNIQUE FEATURES FOR FLYBAR VERSION

1. Lightweight paddles for 3D (weights only 20 grams)
2. Collective pitch range +/-15°

UNIQUE FEATURES FOR FLYBARLESS VERSION

1. Lightweight, rigid one-piece metal main rotor hub
2. Enlarged titanium rod and ball linkage for rigidity and extreme pitch response
3. Wider metal control arms for high control resolution

共通特點

1. 上置式馬達設計使機體重心更為集中且高效散熱
2. 多種馬達座固定孔位：M3x30 mm 或 M4x25/30 mm
3. 適用不同尺寸馬達，最大直徑52 mm
4. 加大135T主齒盤（模數 0.8）
5. 可調式齒比，可適用不同KV值馬達
6. 加大電子設備固定座，方便配置
7. 原廠配備金屬控制臂組，無需額外升級改裝
8. 整合補強肋條及控制臂固定座
9. 可調式馬達固定座及馬達驅動齒輪支撐座
10. 加大電池空間，可適用8-12S鋰電池
11. 標準配備120度十字盤，可改裝為140度（選購）
12. 單片式窄機身碳纖維側板設計(僅30mm寬)
13. 強化10mm主軸，7mm橫軸及5mm尾橫軸
14. 原廠塗裝完成變色龍亮彩玻纖維機頭罩
15. 高強度輕量化腳架
16. 高效率尾軸傳動系統
17. 高精度全金屬尾旋翼系統
18. 碳纖/鋁質複合材尾管，有效降低震動
19. 金屬輕量化尾支撐桿固定座
20. 標準95mm尾旋翼搭配雙滾珠軸承包覆止推軸承
21. 全新設計快拆式尾舵拉桿導環

有平衡翼版專屬特點

1. 標準配備20克3D版輕量化平衡翼
2. 主旋翼攻角達 +/-15度

無平衡翼版專屬特點

1. 全新設計輕量化金屬主旋翼固定座
2. 加粗鈦合金連桿組，螺距反應更明快直接
3. 加長型控制臂組，提高操控解析

Manufactured by THUNDER TIGER CORP.
www.thundertiger.com